DOCUMENT RESUME

ED 175 767 SO 011 934

TITLE Economic Evaluation of New Technologies in Higher Education. N.I.E. Report Phase 1, Volumes 2 and 3 of 7.

INSTITUTION Heriot-Watt Univ., Edinburgh (Scotland). Esmee Fairbairn Economics Research Centre.

SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.

PUB DATE Mar 78

NOTE 243p.; For related documents, see SO 011 930-937; Questions 1-49 of the Pre-test entitled "Microeconomics Comprehension Series" may not reproduce clearly due to light and broken print type of original document

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.

DESCRIPTORS Case Studies; Computer Oriented Programs; Concept Formation; *Concept Teaching; *Economic Education; *Economic Factors; *Economics; Educational Objectives; Evaluation; Higher Education; *Instructional Materials; Multiple Choice Tests; Surveys; *Teaching Methods

ABSTRACT

Designed as an accompaniment to college level microeconomics lectures, (see SO 011 936), the package contains materials for four approaches to the microeconomics course. The course covers topics of economic concepts, issues, and tools; demand; supply; price and output determination in markets; marginal equivalency conditions and economic efficiency; the organization of industries; public goods and externalities; income distribution; international trade; and concepts revisited. Required texts are: "Economics" (Samuelson), "Microeconomics" (Lumsden, Attiyeh, and Bach), and "Study Guide to Accompany Samuelson), (Robinson). The four approaches are conventional, case study, TIPS (Teaching Information Processing System), and cases-TIPS. All courses are based on 25 fifty-minute lectures. The conventional approach uses lectures, texts, workbook, and study guide as teaching methods. The cases course package contains nine case studies on topics such as the effects of pollution, production decisions, and housing, which are used instead of the workbook and study guide. The TIPS package offers surveys relating to each of the lesson units used to provide progress feedback to students and instructors. The Cases-TIPS package combines the use of the case studies and TIPS surveys used above. Materials relevant to all four approaches are provided: an economics and mathematics pretest, student information questionnaire, psychological inventory, continuous and final student evaluation questionnaire, pretest of microeconomics comprehension, midterm, and final examination. (CK)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

BEST COPY AVAILABLE

Economic Evaluation of New Technologies in Higher Education.

N.I.E. Report Phase 1,

Volumes 2 and 3 of 7.

March 1978

THE ESMEE FAIRBAIRN RESEARCH CENTRE, HERIOT-WATT UNIVERSITY, EDINBURGH.

The Esmée Fairbairn Research Centre, TEFRC, was established in 1970 and grew out of the Economics Education Project which was concerned with analysing how economics was being taught in schools, polytechnics, colleges and universities in the United Kingdom. Since its establishment, the Centre has undertaken several studies in the United Kingdom and United States of America, focussing mainly on efficiency in higher education.

Beginning in 1975, the principal research activity of TEFRC will be evaluating the cost effectiveness of alternative systems of instruction in higher education and assessing the likelihood of their diffusion in different institutional settings.

The Research Centre is part of the Department of Economics at Heriot-Watt University. The Director is Professor Keith G Lumsden.

Correspondence should be addressed to:-

Professor Keith G Lumsden, MA, PhD,
Director,
The Esmée Fairbairn Research Center,
Department of Economics,
Heriot-Watt University,
Chambers Street,
Edinburgh EH1 1HX.
Scotland.

TABLE OF CONTENTS

Volume 1: Preface
1.1 Introduction
1.2 Pilot Study
1.3 Research Design
1.4 Participating Institutions

Volume 2: Course Packages

Micro Core Courses

2.1 Conventional Course
2.2 Cases Course

Volume 3: Course Packages (cont'd)

Micro Core Courses (cont'd)

2.3 TIPS Course
2.4 Cases-TIPS Course

Volume 4: Course Packages (cont'd)

Macro Core Courses

2.5 Conventional Course
2.6 Games Course

Volume 5: Course Packages (cont'd)

Macro Core Courses (cont'd)

2.7 TIPS Course

Volume 6: Micro Core Units

1 Economic Concepts, Issues and Tools
2 Demand
3 Supply
4 Price and Output Determination in Markets
5 Marginal Equivalency Conditions and Economic Efficiency
6 The Organisation of Industries
7 Public Goods and Externalities
8 Income Distribution
9 International Trade

Volume 7: Macro Core Units

1 Basic Macroeconomic Concepts
2 A Simple Model of Income and Expenditure Determination
3 Aggregate Demand, Unemployment, and Inflation
4 Using the Expanded Model for Policy Making
5 Investment Expenditure
6 Money and Interest
7 Money, Interest, and Income
8 Aggregate Supply
9 International Macroeconomics

MICRO CORE COURSE

2.1. Conventional Course Package

2.1.1	Micro Units	1 Economic Concepts, Issues, and Tools 2 Demand 3 Supply 4 Price and Output Determination in Markets 5 Marginal Equivalency Conditions and Economic Efficiency 6 The Organisation of Industries 7 Public Goods and Externalities 8 Income Distribution 9 International Trade 10 Concepts Revisited
2.1.2	Lectures	25 x 50 Minute Lectures
2.1.3	Texts	Economics (Samuelson); Microeconomics (Lumsden, Attiyeh, Bach); Study Guide to Accompany Samuelson (Robinson).
2.1.4	Readings	1 The Economic Organization of a Prisoner of War Camp, R.A.Radford 2 One Dutch man hour = Two British man hours, William Rees-Mogg, The Times, 28.9.1977 3 The Dynamics of 'Shortage' of Engineers and Scientists, K Arrow and W Capron 4 The Economic Common Sense of Pollution, Larry A Ruff 5 A Fable of Trade and Technology, J.C Ingram
2.1.5	Assignments	1 Mathematics Survey 2 Workbook 3 Mid Term Examination (50 Minutes - Objective) 4 Mid Term Examination (50 Minutes - Essays) 5 Final Examination (3 Hours - Objective + Cases + Essays)
2.1.6	Tutorials	1 Mathematics Tutorial 2 9 x 50 Minute Tutorials
2.1.7	Research Requirements	1 Student Information Questionnaire 2 Pre-Test in Economics 3 Psychological Inventory 4 Continuous Student Evaluation Questionnaire 5 End of Quarter Student Evaluation Questionnaire 6 Instructor Questionnaire

	Lecture 1	Lecture 2	Lecture 3
LECTURE CONTENT	Introduction and Overview MICRO UNIT 1: ECONOMIC CONCEPTS ISSUES, AND TOOLS 1.1 Scarcity and Choice 1.2 Preferences, Resources, Exchange and Economic Efficiency	1.3 Marginal Analysis and Opportunity Cost 1.4 Different Economic Systems	MICRO UNIT 2: DEMAND 2.1 The Concept of Demand 2.2 Influences on Demand 2.3 Assumptions in the Theory of Demand
TEXTS	Lumsden, Attiyeh, Bach: Microeconomics, Ch 1,2 Samuelson: Economics, Ch 1, 2, 3	Microeconomics, Ch 2 Economics, Ch 43	Microeconomics, Ch 3 Economics, Ch 22
READINGS			
ASSIGNMENTS	Student Information Questionnaire Psychological Inventory Pre-Test in Economics Basic Mathematical Survey Workbook		
TUTORIAL		(Remedial Mathematics Tutorial)	Micro Unit 1, 1.1 - 1.4

	Lecture 4	Lecture 5	Lecture 6
LECTURE CONTENT	MICRO UNIT 2: DEMAND (cont'd) 2.4 Implications of the Assumptions 2.5 Individual Demand	2.6 Market Demand 2.7 Characteristics of Demand	MICRO UNIT 3: SUPPLY 3.1 The Concepts of Supply 3.2 Influences on Supply
TEXTS	Microeconomics, Ch 3 Economics, Ch 22	Microeconomics, Ch 4 Economics, Ch 22	Microeconomics, Ch 5 Economics, Ch 23, 27
READINGS	The Economic Organization of a Prisoner of War Camp, R.A. Radford		
ASSIGNMENTS	Workbook		
TUTORIAL			Micro Unit 2, 2.1 - 2.7

	Lecture 7	Lecture 8	Lecture 9
LECTURE CONTENT	MICRO UNIT 3: SUPPLY (cont'd) 3.3 Assumptions in the Theory of Supply 3.4 Implications of the Assumptions	3.4 Implications of the Assumptions (cont'd)	3.5 Firm Supply in the Short Run
TEXTS	Microeconomics, Ch 6 Economics, Ch 23, 27	Microeconomics, Ch 6 Economics, Ch 23, 27	Microeconomics, Ch 5, 6 Economics, Ch 23, 27
READINGS	One Dutch man hour = two British man hours, William Rees-Mogg, The Times, 28.9.77		
ASSIGNMENTS	Workbook		
TUTORIAL			Micro Unit 3, 3.1 - 3.4

	Lecture 10	Lecture 11	Lecture 12
LECTURE CONTENT	MICRO UNIT 3: SUPPLY (cont'd) 3.5 Firm Supply in the Short Run (cont'd) 3.6 Industry Supply in the Short Run	3.7 Firm Supply in the Long Run 3.8 Industry Supply in the Long Run 3.9 Characteristics of Supply	MICRO UNIT 4: PRICE AND OUTPUT DETERMINATION IN MARKETS 4.1 The Concept of a Market 4.2 Market Supply and Demand
TEXTS	Microeconomics, Ch 6 Economics, Ch 23	Microeconomics, Ch 7 Economics, Ch 24	Microeconomics, Ch 8 Economics, Ch 24
READINGS			
ASSIGNMENTS	Workbook	Mid Term Examination (Objective)	
TUTORIAL			Micro Unit 3, 3.4 - 3.9

	Lecture 13	Lecture 14	Lecture 15
LECTURE CONTENT	MICRO UNIT 4: PRICE AND OUTPUT DETERMINATION IN MARKETS (cont'd) 4.3 The Operation of Markets 4.4 Changes in Market Equilibrium	4.5 Intervention in the Market 4.6 Dynamic Adjustments in the Market	MICRO UNIT 5: MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY 5.1 The Marginal Equivalency Conditions 5.2 Resources Allocation and Profit Maximising Benaviour in the Short Run
TEXTS	Microeconomics, Ch 8 Economics, Ch 4, 20	Microeconomics, Ch 8 Economics, Ch 4, 20	Microeconomics, Ch 8 Economics, Ch 4, 20
READINGS		The Dynamics of 'Shortage' of Engineers and Scientists, K Arrow and W Capron	
ASSIGNMENTS	Workbook		
TUTORIAL			Micro Unit 4, 4.1 - 4.6

	Lecture 16	Lecture 17	Lecture 18
LECTURE CONTENT	MICRO UNIT 5: MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY (con't'd) 5.3 Resource Allocation and Profit Maximising Behaviour in the Long Run 5.4 The Wonderful World of Adam Smith vs. The Real World	MICRO UNIT 6: THE ORGANISATION OF INDUSTRIES 6.1 Characteristics of Firms 6.2 Perfect Competition	6.3 Monopoly and Economies of Scale 6.4 Imperfect Competition 6.5 Regulation and Economic Efficiency
TEXTS	Microeconomics, Ch 9 Economics, Ch 23, 24	Microeconomics, Ch 11 Economics, Ch 25	Microeconomics, Ch 11 Economics, Ch 25, 26
READINGS			
ASSIGNMENTS	Continuous Student Evaluation Questionnaire Workbook Mid Term Examination (Essay)		
TUTORIAL			Micro Unit 5, 5.1 - 5.4 Micro Unit 6, 6.1 - 6.2

	Lecture 19	Lecture 20	Lecture 21
	MICRO UNIT 7: PUBLIC GOODS AND EXTERNALITIES 7.1 Public Goods vs. Private Goods 7.2 Public Goods, Collective Action, and Economic Efficiency	7.3 Externalities: Positive and Negative 7.4 Externalities, Collective Action, and Economic Efficiency	MICRO UNIT 8: INCOME DISTRIBUTION 8.1 Marginal Productivity 8.2 Economic Rent
TEXTS	Microeconomics, Ch 10 Economics, Ch 8, 26	Microeconomics, Ch 10 Economics, Ch 8, 26	Microeconomics, Ch 12 Economics, Ch 27, 28
READINGS		The Economic Common Sense of Pollution, Larry E Ruff	
ASSIGNMENTS	Workbook		
TUTORIAL			Micro Unit 6, 6.3 - 6.5 Micro Unit 7, 7.1 - 7.4

	Lecture 22	Lecture 23	Lecture 24
LECTURE CONTENT	MICRO UNIT 8: INCOME DISTRIBUTION (cont'd) 8.3 Monopsony 8.4 Trade Unions 8.5 Income Distribution Collective Action, and Economic Equity	MICRO UNIT 9: INTERNATIONAL TRADE 9.1 Gains from Exchange 9.2 Theory of Comparative Advantage 9.3 Tariffs and Quotas 9.4 Exchange Rates	MICRO UNIT 10: CONCEPTS REVISITED 10.1 Consumer Rationality 10.2 Marginal Cost Pricing 10.3 Income, Wealth and Power Distribution
TEXTS	Microeconomics, Ch 12 Economics, Ch 29, 30		Economics, Ch 31, 32
READINGS		A Fable of Trade and Technology J C Ingram	
ASSIGNMENTS	Workbook		
TUTORIAL			Micro Unit 8, 8.1 - 8.5 Micro Unit 9, 9.1 - 9.4

Lecture 25

LECTURE CONTENT	MICRO UNIT 10: CONCEPTS REVISITED (cont'd) 10.4 Competition vs. Co-operation: Capitalism vs. Maoism 10.5 Legitimate Role of Government: Friedman vs. Galbraith
TEXTS	Economics, Ch 31, 32
READINGS	
ASSIGNMENTS	End of Quarter Student Student Evaluation Questionnaire Final Examination
TUTORIAL	Micro Unit 10, 10.1 - 10.5

Continuous Student Evaluation Questionnaire

Traditionally in institutions of higher education little attention has been paid either to student opinion of the course and instructors, or to what students think they have learned. Final examination marks tend to be the only measuring rod of course output. It is possible that the subjective opinions of students and instructors, especially where non-traditional teaching methods have been used, are not only valid measures of course output but may be the critical factor in determining the optimal type of course for students, instructors and institutions.

Because of the potential of such information your careful and considered answers to the questions below are extremely important.

Continuous Student Evaluation Questionnaire

Surname: Forename:

What is your opinion of the overall value of this course, taking into account your enjoyment of the teaching methods and the amount which you feel you have learned so far? Circle the appropriate number on the scale.

LOW 1 2 3 4 5 HIGH

On the scale below, circle the number which you feel accurately reflects your enjoyment with the different methods of teaching to which you have been exposed during this course.

	LOW				HIGH
Lectures	1	2	3	4	5
Textbook	1	2	3	4	5
Programmed Text	1	2	3	4	5
Readings	1	2	3	4	5
Workbook	1	2	3	4	5
Tutorials	1	2	3	4	5

Continuous Student Evaluation Questionnaire (2)

At the beginning of this course you were provided with a detailed course outline which set out the main topics to be covered in the course. Up to this time you have covered the following topics:

1. ECONOMIC CONCEPTS, ISSUES AND TOOLS
2. DEMAND
3. SUPPLY
4. PRICE AND OUTPUT DETERMINATION IN MARKETS
5. MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY

Allocate 100 points among the teaching methods listed below to reflect the contribution you consider they have made to your understanding of these topics:

Lectures	Text-book	Prog. Text	Readings	Workbook	Tutorials	None of These	TOTAL
							100

You have now been studying economics for six weeks. The following questions refer to the use which you have made of each teaching method.

Lectures:	How many of the sixteen lectures have you attended?	____
Textbook:	How many of the ten recommended chapters have you read?	____
Programmed Text:	How many of the nine recommended chapters have you read?	____
Readings:	How many of the three recommended readings have you read?	____
Workbook:	How many of the five recommended assignments have you completed?	____
Tutorials:	How many of the five tutorials have you attended?	____

End of Quarter Student Evaluation Questionnaire

Name:

How would you compare the amount of time spent on this course with the amount of time spent on other courses you took this quarter? Circle the appropriate number.

LOW				HIGH
1	2	3	4	5

If your answer to the above question was low (i.e. 1 or 2), please give the reason(s). Tick the appropriate box(es).

- ☐ High volume of written work in other courses
- ☐ High volume of reading work in other courses
- ☐ Economics is not my major subject
- ☐ I find the course uninteresting
- ☐ Other (specify).....

If your answer to the above question was high (i.e. 4 or 5), please give the reason(s). Tick the appropriate box(es).

- ☐ High volume of written work in tutorials in the course (e.g. essays, cases, etc.)
- ☐ High volume of reading work in the course
- ☐ Economics is my major subject
- ☐ I find the course interesting
- ☐ Other (specify).....

On the scale below, circle the number which reflects your enjoyment with the teaching methods used this quarter.

	LOW				HIGH
Lectures	1	2	3	4	5
Textbook	1	2	3	4	5
Programmed Text	1	2	3	4	5
Readings	1	2	3	4	5
Workbook	1	2	3	4	5
Tutorials	1	2	3	4	5

End of Quarter Student Evaluation Questionnaire (2)

Circle the number which reflects your opinion of economics in relation to the characteristics listed.

		LOW				HIGH
Economics is:	relevant to real life	1	2	3	4	5
	interesting	1	2	3	4	5
	intellectually demanding	1	2	3	4	5

Allocate 100 points among the teaching methods to reflect the contribution each has made to your understanding of this course.

Lectures	Text-book	Prog. Text	Readings	Workbook	Tutorials	None of These	TOTAL
							100

If the final examination this term were to reflect microeconomics comprehension accurately, in which of the following categories of marks would you appear? Circle the number which applies.

<20	21-30	31-40	41-50	51-60	61-70	71-80	>80
1	2	3	4	5	6	7	8

Knowing now what you do about this course, would you have taken this course if it were not required? Tick the appropriate box.

Yes ☐

No ☐

End of Quarter Student Evaluation Questionnaire (3)

Each of the teaching methods used in this course has a number of characteristics which contribute to learning. Allocate 100 points among the characteristics for each method to reflect the extent to which each characteristic has contributed to your learning.

Method	Feedback	Gearing to individual needs	Applicability to real life	Other	TOTAL
Lectures					100
Textbook					100
Programmed Text					100
Readings					100
Workbook					100
Tutorials					100

Students vary in their learning needs, some of which are listed below. Allocate 100 points among the teaching methods to reflect the extent to which each met <u>your</u> learning needs.

TECHNIQUE	Identifying areas of weakness	Clarifying concepts	Connecting different concepts	Applying concepts to real life problems	Analysing complex situations	Evaluating economic policy decisions	TOTAL
Lectures							100
Textbook							100
Programmed Text							100
Readings							100
Workbook							100
Tutorials							100

End of Quarter Student Evaluation Questionnaire (4)

On the scale below circle the number which reflects your overall rating of:	LOW				HIGH
Your professor.....	1	2	3	4	5
Your tutor.....	1	2	3	4	5

Circle the number (or x) which reflects your opinion of the different characteristics of your lecturer and tutor during this course:

	Professor						Tutor					
	NO OPINION	LOW				HIGH	NO OPINION	LOW				HIGH
Imparts enthusiasm.....	x	1	2	3	4	5	x	1	2	3	4	5
Knows subject matter well.	x	1	2	3	4	5	x	1	2	3	4	5
Is well prepared for class	x	1	2	3	4	5	x	1	2	3	4	5
Demonstrates practical applications of course material.....	x	1	2	3	4	5	x	1	2	3	4	5
Presents material with clarity.....	x	1	2	3	4	5	x	1	2	3	4	5
Speaks clearly and distinctly.....	x	1	2	3	4	5	x	1	2	3	4	5
Uses the blackboard effectively.....	x	1	2	3	4	5	x	1	2	3	4	5
Is available outside class.....	x	1	2	3	4	5	x	1	2	3	4	5
Is sensitive to students' level of understanding and is responsive to students' questions.....	x	1	2	3	4	5	x	1	2	3	4	5
Has respect for students' opinions.....	x	1	2	3	4	5	x	1	2	3	4	5
Provides helpful comments on assignments.....	x	1	2	3	4	5	x	1	2	3	4	5

Which two aspects of the course and/or professor and/or tutor did you like:

(a) best: _____

_____

_____

_____

_____

_____

_____

(b) least: _____

_____

_____

_____

_____

_____

Instructor Questionnaire

The purpose of this questionnaire is twofold; (1) to collect data on instructor characteristics which may affect student economics comprehension at the end of the course and/or student attitude towards the subject, and (2), to collect instructor opinion of different teaching techniques and plans for adoption and implementation. Please include a curriculum vitae listing publications and current research.

1. College or University: _____

2. Surname: _____ Initials: _____

3. Rank:
   Professor..... _____
   Associate Professor..... _____
   Assistant Professor..... _____
   Instructor..... _____
   Other (specify). _____
   _____

4. Degree, Institution, and year of award:
   e.g., B.A, Fresno State University, 1958
   M.A, Harvard University, 1960
   Ph.D, University of California at San Diego, 1968

   _____

   _____

5. Teaching Experience:

Institution	Dates	Courses

6. Number of Quarters/Semesters in which you previously have taught this course..... _____

7. In how many sections are you teaching this course currently?..... _____

8. For how many hours per week, on average, are you involved in official university activities?..... _____
   e.g., teaching, administration, research, etc.

9. How is your time allocated during the current academic year (excluding summer)?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

10. How was your time allocated during the last academic year?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

11. How will your time be allocated during the coming summer?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

12. How was your time allocated during the last summer?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

Course Information

1. How many office hours, if any, do you hold for this course? _____

2. What percentage of students in this course come to these office hours? ..... _____

3. During 'lecture' hours, what percentage of your time is spent:
   (a) in lecturing? ..... _____
   (b) in class discussion? ..... _____

4. During 'tutorial' hour(s), what percentage of time is spent
   (a) in lecturing? ..... _____
   (b) in discussion? ..... _____
   (c) other? Specify _____

5. Allocate 100 points among the teaching methods to reflect the contribution you believe each has made on average to the economics comprehension of students in this course.

Lectures	Textbook	Prog. Text	Readings	Workbook	Tutorials	Other	Total
							100

6. Consult the Course Management Plan and indicate, by week, how many hours you expect students to study for this course, excluding lectures and tutorials.

Wk.	1	2	3	4	5	6	7	8	9	10	..	..	..	..	..	..	..
Hrs.																	

7. Students will complete the faculty evaluation form below. We intend to run regressions in which overall rating of the instructor will be the dependent variable and in which the listed attributes will be the independent variables. The regression coefficients can be thought of as the weights students attach to instructor attributes.

First, what weights would you assign to each of the instructor attributes listed? (Allocate 100 points). Second, what weights do you think your students will assign to each of the instructor attributes? (Allocate 100 points). Third, what important instructor attributes, if any, do you think have been omitted from the list? Fourth, how much of the variance in overall ratings do you think will be explained by the instructor attributes listed? (i.e, estimate the R^2).

Attributes	7.1 Your Weights (Σ = 100)	7.2 Expected Student Weights (Σ = 100)
Imparts enthusiasm.....		
Knows subject matter well.....		
Is well prepared for class.....		
Demonstrates practical applications of course material.....		
Presents material with clarity.....		
Speaks clearly and distinctly.....		
Uses blackboard effectively.....		
Is available outside class.....		
Is sensitive to students' level of understanding and is responsive to students' questions.....		
Has respect for students' opinions.....		
Provides helpful comments on assignments.....		
Totals:	100	100

7.3 Important instructor attributes missing from the list above:_____

_____

7.4 Anticipated percentage of variance explained (i.e., estimated R^2)___

Instructor Questionnaire (4)

New Techniques

In comparing this course with a traditional lecture course, we require data on costs and benefits, some of which at this stage, will be subjective.

1. Do you think this course is an improvement on the traditional lecture course?..... Yes/No

   Why?_____

   _____

2. What has been the reaction of students to the course? _____

   _____

3. Which, if any, of the new techniques do you plan to adopt?_____

   Justify:_____

   _____

3.1 In what way do you intend to modify any of the new techniques you are planning to adopt? Explain....._____

   _____

3.2 What, if any, are the resource reallocation implications for your department? Explain... _____

   _____

3.3 Do you anticipate any of your colleagues in the economics department altering their teaching practices in the light of this experiment?..... Yes/No

   Explain:_____

   _____

3.4 Do you anticipate any instructors in other departments altering their teaching practices in the light of this experiment?..... Yes/No

   Explain:_____

   _____

Instructor Questionnaire (5)

When the data in this experiment have been analysed we shall be holding a conference for all participating institutions. Prior to the meeting we shall require additional information on both the experiment and plans for reorgansiation of the Economics 1 course and concomittant costs.

However, at this time any comments you have on the techniques or the experiment would be appreciated.

MICRO CORE COURSE

2.2 CASES COURSE PACKAGE

2.2.1	Micro Units	1	Economic Concepts, Issues, and Tools
		2	Demand
		3	Supply
		4	Price and Output Determination in Markets
		5	Marginal Equivalency Conditions and Economic Efficiency
		6	The Organisation of Industries
		7	Public Goods and Externalities
		8	Income Distribution
		9	International Trade
		10	Concepts Revisited
2.2.2	Lectures	25 x 50 Minute Lectures	
2.2.3	Texts	Economics (Samuelson); Microeconomics (Lumsden, Attiyeh, Bach)	
2.2.4	Readings	1	The Economic Organisation of a Prisoner of War Camp, R A Radford
		2	One Dutch man hour = Two British man hours, William Rees-Mogg, The Times, 28.9.1977
		3	The Dynamics of 'Shortage' of Engineers and Scientists, K Arrow and W Capron
		4	The Economic Common Sense of Pollution, Larry E Ruff
		5	A Fable of Trade and Technology, J C Ingram
2.2.5	Assignments	1	Mathematics Survey
		2	9 Case Studies
		3	Mid Term Examination (50 Minutes - Objective)
		4	Mid Term Examination (50 Minutes - Essays)
		5	Final Examination (3 Hours - Objective + Cases + Essays)
2.2.6	Remedial Tutorials	1	Mathematics Tutorial
		2	9 Tutorials
2.2.7	Research Requirements	1	Student Information Questionnaire
		2	Pre-Test in Economics
		3	Psychological Inventory
		4	Continuous Student Evaluation Questionnaire
		5	End of Quarter Student Evaluation Questionnaire
		6	Instructor Questionnaire

36

	Lecture 1	Lecture 2	Lecture 3
LECTURE CONTENT	Introduction and Overview Description of Cases MICRO UNIT 1: ECONOMIC CONCEPTS ISSUES, AND TOOLS 1.1 Scarcity and Choice 1.2 Preferences, Resources, Exchange and Economic Efficiency	1.3 Marginal Analysis and Opportunity Cost 1.4 Different Economic Systems	MICRO UNIT 2: DEMAND 2.1 The Concept of Demand 2.2 Influences on Demand 2.3 Assumptions in the Theory of Demand
TEXTS	Lumsden, Attiyeh, Bach: Microeconomics, Ch 1, 2 Samuelson: Economics, Ch 1,2,3	Microeconomics, Ch 2 Economics, Ch 43	Microeconomics, Ch 3 Economics, Ch 22
READINGS			
ASSIGNMENTS	Student Information Questionnaire Psychological Inventory Pre-Test in Economics Basic Mathematical Survey	Case 1.1 Marginal Analysis and Noise Pollution	
TUTORIAL		Remedial Mathematics Tutorial	Case Analysis 1.1 Marginal Analysis and Noise Pollution

	Lecture 4	Lecture 5	Lecture 6
LECTURE CONTENT	MICRO UNIT 2: DEMAND (cont'd) 2.4 Implications of the Assumptions 2.5 Individual Demand	2.6 Market Demand 2.7 Characteristics of Demand	MICRO UNIT 3: SUPPLY 3.1 The Concept of Supply 3.2 Influences on Supply
TEXTS	Microeconomics, Ch 3 Economics, Ch 22	Microeconomics, Ch 4 Economics, Ch 22	Microeconomics, Ch 5 Economics, Ch 23, 27
READINGS	The Economic Organisation of a Prisoner of War Camp, R A Radford		
ASSIGNMENTS		Case 2.1. Cash vs. Vouchers	
TUTORIAL			Case Analysis 2.1, Cash vs. Vouchers

	Lecture 7	Lecture 8	Lecture 9
LECTURE CONTENT	MICRO UNIT 3: SUPPLY (cont'd) 3.3 Assumptions in the Theory of Supply 3.4 Implications of the Assumptions	3.4 Implications of the Assumptions (cont'd)	3.5 Firm Supply in the Short Run
TEXTS	Microeconomics, Ch 6 Economics, Ch 23, 27	Microeconomics, Ch 6 Economics, Ch 23, 27	Microeconomics, Ch 5, 6 Economics, Ch 23, 27
READING	One Dutch man hour = two British man hours, William Rees-Mogg, The Times, 28.9.77		
ASSIGNMENTS		Case 3.1. Production Decisions for the Jewellery Manufacturer	
TUTORIAL			Case Analysis 3.1. Production Decisions for the Jewellery Manufacturer

	Lecture 10	Lecture 11	Lecture 12
	MICRO UNIT 3: SUPPLY (cont'd) 3.5 Firm Supply in the Short Run (cont'd) 3.6 Industry Supply in the Short Run	3.7 Firm Supply in the Long Run 3.8 Industry Supply in the Long Run 3.9 Characteristics of Supply	MICRO UNIT 4: PRICE AND OUTPUT DETERMINATION IN MARKETS 4.1 The Concept of a Market 4.2 Market Supply and Demand
TEXTS	Microeconomics, Ch 6 Economics, Ch 23	Microeconomics, Ch 7 Economics, Ch 24	Microeconomics, Ch 8 Economics, Ch 24
READING			
ASSIGNMENTS		Case 3.2. The Empty House Mid Term Examination (Objective)	
TUTORIAL			Case Analysis 3.2. The Empty House

	Lecture 13	Lecture 14	Lecture 15
LECTURE CONTENT	MICRO UNIT 4: PRICE AND OUTPUT DETERMINATION IN MARKETS (cont'd) 4.3 The Operation of Markets 4.4 Changes in Market Equilibrium	4.5 Intervention in the Market 4.6 Dynamic Adjustment in the Market	MICRO UNIT 5: MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY 5.1 The Marginal Equivalency Conditions 5.2 Resource Allocation and Profit Maximising Behaviour in the Short Run
TEXTS	Microeconomics, Ch 8 Economics, Ch 4, 20	Microeconomics, Ch 8 Economics, Ch4, 20	Microeconomics, Ch 8 Economics, Ch 4, 20
READING		The Dynamics of 'Shortage' of Engineers and Scientists, K Arrow and W Capron	
ASSIGNMENTS		Case 4.1. Housing in South California	
TUTORIAL			Case Analysis 4.1. Housing in South California

46

	Lecture 16	Lecture 17	Lecture 18
LECTURE CONTENT	MICRO UNIT 5: MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY (cont'd) 5.3 Resource Allocation and Profit Maximising Behaviour in the Long Run 5.4 The Wonderful World of Adam Smith vs. The Real World	MICRO UNIT 6: THE ORGANISATION OF INDUSTRIES 6.1 Characteristics of Firms 6.2 Perfect Competition	6.3 Monopoly and Economies of Scale 6.4 Imperfect Competition 6.5 Regulation and Economic Efficiency
TEXTS	Microeconomics, Ch 9 Economics, Ch 23, 24	Microeconomics, Ch 11 Economics, Ch 25	Microeconomics, Ch 11 Economics, Ch 25, 26
READING			
ASSIGNMENTS	Continuous Student Evalutation Questionnaire Mid Term Examination (Essay)	Case 5.1 The Economics of Army Conscription	
TUTORIAL			Case analysis 5.1. The Economics of Army Conscription

	Lecture 19	Lecture 20	Lecture 21
LECTURE CONTENT	MICRO UNIT 7: PUBLIC GOODS AND EXTERNALITIES 7.1 Public Goods vs. Private Goods 7.2 Public Goods, Collective Action and Economic Efficiency	7.3 Externalities: Positive and Negative 7.4 Externalities, Collective Action, and Economic Efficiency	MICRO UNIT 8: INCOME DISTRIBUTION 8.1 Marginal Productivity 8.2 Economic Rent
TEXTS	Microeconomics, Ch 10 Economics, Ch 8, 26	Microeconomics, Ch 10 Economics, Ch 8, 26	Microeconomics, Ch 12 Economics, Ch 27, 28
READING		The Economic Common Sense of Pollution, Larry E Ruff	
ASSIGNMENTS		Case 7.1. Pollution and the Metal Casting Industry	
TUTORIAL			Case Analysis 7.1. Pollution and the Metal Casting Industry

	Lecture 22	Lecture 23	Lecture 24
LECTURE CONTENT	MICRO UNIT 8: INCOME DISTRIBUTION (cont'd) 8.3 Monopsony 8.4 Trade Unions 8.5 Income Distribution, Collective Action, and Economic Equity	MICRO UNIT 9: INTERNATIONAL TRADE 9.1 Gains from Exchange 9.2 Theory of Comparative Advantage 9.3 Tariffs and Quotas 9.4 Exchange Rates	MICRO UNIT 10: CONCEPTS REVISITED 10.1 Consumer Rationality 10.2 Marginal Cost Pricing 10.3 Income, Wealth and Power Distribution
TEXTS	Microeconomics, Ch 12 Economics, Ch 29, 30	Microeconomics, Ch 9 Economics, Ch 34, 35	Economics, Ch 31, 32
READING		A Fable of Trade and Technology, J C Ingram	
ASSIGNMENTS		Case 9.1. The Gains from Trade	
TUTORIAL			Case Analysis 9.1. The Gains from Trade

Lecture 25

LECTURE CONTENT	MICRO UNIT 10: CONCEPTS REVISITED (cont'd) 10.4 Competition vs. Co-operation: Capitalism vs. Maoism 10.5 Legitimate Role of Government: Friedman vs. Galbraith
TEXTS	Economics, Ch 31, 32
READING	
ASSIGNMENTS	End of Quarter Student Evaluation Questionnaire Final Examination
TUTORIAL	The Economics of Minimum Wages and Income Distribution (Discussion Case)

Case 1.1 Marginal Analysis and Noise Pollution

There are certain sounds or noises which give certain people pleasure - the discotheque in full swing or the grand opera chorus. There are other noises, equally loud, which yield displeasure - motorcyles with no silencers, or jet aircraft. Many motorways which pass through residential areas cause noise levels which result in residents' complaints. Often action is taken to reduce such noise levels to tolerable proportions.

How can marginal analysis help a society make sensible decisions in reducing noise pollution? Noise can be measured on a dB(A) (decibel) scale. For noise levels below 68 on the scale people seldom complain, whereas permanent ear damage can result at dB(A) levels above 90 if an individual is exposed to such a level over a protracted period of time. (You might think about this if you are a rock music fan and you might also note the earmuffs worn by ground personnel at airports.)

Let us imagine that the residents of some community decide to reduce the noise level from the motorway passing through their community. The average noise level measures 85 on a dB(A) scale. The options shown in Table 1.1(1) are available to the community to reduce motorway noise. The community can choose one or more.

Table 1.1(1) Options Available to the Community

Action	Marginal change in noise level	Annual Cost (£)
1 (a) Build concrete wall 2 metres high	-10dB(A)'s	160,000*
OR (b) Build concrete wall 3 metres high	-12dB(A)'s	190,000*
OR (c) Build concrete wall 4 metres high	-13dB(A)'s	230,000*
2 Reduce speed limit and enforce limit through police control (-10 mph)	- 3dB(A)'s	90,000
3 Resurface road	- 2dB(A)'s	70,000*
4 Rebuild and sink road 4 metres	-10dB(A)'s	2,500,000*

* Total cost divided by estimated number of years of useful life.

The residents decide that they are prepared to pay, collectively, £31,000 annually for each dB(A) that noise is reduced until a level of 68 is reached and nothing thereafter for further noise reduction.

The local council members propose that a 4 metre wall be built but no other option be considered. Their reasoning is that the annual costs of the 4 metre wall would be £230,000 and the annual benefits £403,000. Thus, they argue, the 4 metre wall is clearly worthwhile. They propose only the 4 metre wall and point out that no other option yields such a large surplus benefit over cost.

As an economic consultant to the 'Residents Against Motorway Noise Committee' your report begins as follows. "The Council has failed to reach the best solution for reducing noise pollution...."

Complete the report.

Case 3.1 Production Decisions for the Jewellery Manufacturer

The Easycharm Manufacturing Company produces four products: agate bracelets, turquoise necklaces, opal rings, and amethyst brooches. Its objective is to produce and sell the quantity of each product which maximises profit. Current market prices of the products are given in Table 3.3(1).

Table 3.3(1) The Easycharm Manufacturing Company's Products and Prices

Product	Price (£)
Bracelets	4.00
Necklaces	300.00
Rings	15.00
Brooches	8.00

Retail outlets are prepared to take as many bracelets, necklaces, rings, and brooches, at these prices, as the Easycharm Manufacturing Company can produce. Total costs of production for different quantities of each product are given in Table 3.2(2).

Table 3.3(2) Total Costs for Different Levels of Output

Bracelets		Necklaces		Rings		Brooches	
Output per day	Total cost (£)	Output per day	Total cost (£)	Output per day	Total cost (£)	Output per day	Total cost (£
0	100	0	800	0	300	0	10
100	200	1	900	10	400	10	100
200	350	2	1,025	20	540	20	210
300	550	3	1,200	30	700	30	330
400	850	4	1,500	40	900	40	490
500	1,300	5	1,900	50	1,150	50	700

Currently, the Company produces 300 bracelets, 5 necklaces, 10 rings, and 30 brooches per day. But Madame Pauline, the Managing Director, is worried about the financial position of the Company and doubts whether the goal of profit maximisation is being achieved.

You have been employed as a consultant by the Managing Director and given the following brief - "Given the continuation of current market prices and production schedules, please advise me which, if any, of our activities should be expanded, contracted or eliminated in the short run."

Draft your reply in a report.

MICRO UNIT 4

Case 4.1 Housing in South California

The following extracts are taken from a report entitled "South Californian Bubble", which appeared in The Economist, 2 July, 1977.

> "South California is in the grips of a property boom quite out of step with the rest of the country. A frenzy of speculation has pushed up new house prices by 2% a month for the past two years - 50% faster than the national average....
>
> The market seems to be expanding as people move south, as post-war babies begin rearing their own families, and as the burgeoning numbers of divorced couples search for two homes rather than one; indeed the number of single adults desiring to live alone is one of the most remarkable features of California's housing boom....
>
> .....to make things worse, the recent world wide inflation in materials prices has significantly pushed up building costs, and builders also fear they may soon run out of land on which it is permissible to build....
>
> The hottest area for building and for speculation is Orange County, a populous, largely residential area south of Los Angeles, where the demand for homes is so great that lotteries have become commonplace. There are, for example 5,500 names on the waiting list for the next 100 houses to be built in one popular tract. Elsewhere, a construction company recently held a lottery to select those among 1,000 applicants who might buy 191 houses priced at $115,000."

A group of wealthy Californians who formed the "More than Adequate Housing for the Rich" Committee has invited you, a leading micro economist, to explain the housing market in South California. Since this group consists of people who own houses in Orange County as well as people who would like to own houses there, your address should include an analysis of the expected impact of the boom on existing house prices and sales as well as an analysis of the market for new houses. In addition, you should evaluate the lottery scheme adopted by several construction companies in Orange County for allocating new houses.

MICRO UNIT 7

Case 7.1 Pollution and the Metal Casting Industry

The Industry

A metal casting is the result of pouring molten metal into a mould that has been patterned to give the metal the desired shape. In its most elementary form, casting thus involves the melting of some metal, its being poured into a previously made mould, and the solidification of the metal, after which the mould is removed. Such casting, done in foundries, is by far the cheapest way to produce blocks of metal in desired shapes, much cheaper than machining metal into the shapes needed. Castings are made with a wide variety of metals, but iron castings are by far the largest in terms of total output.

Currently there are over 800 foundries in the Midlands employing 50,000 men a high proportion of whom are unskilled. Most foundries are small, average sales being less than £300,000, on which, in a typical foundry, profits before taxes would be about £30,000 in a good year.

Nearly all iron foundries are similar in operation. They use a tall cupola with a high, outside smokestack. Coke is burned in these cupolas, and air is forced up through the cupola at a very high velocity to increase the heat of the coke when it burns. The pig iron and scrap iron are melted in this heat and poured into the mould. Under the intense heat, the air expands and rushes out of the top of cupola into the atmosphere. This discharge over an hour from a typical small cupola will contain as much as 128 pounds of fly-ash particulate.

Cast iron foundries are one of the oldest of man's inventions for handling metals, and until recently no one paid much attention to the pollution problem surrounding such foundries. Data from government tests show that of the dust that is blown up through the stacks, about 80% in a gray-iron foundry (the common type) is large particles that are too heavy to travel far and that usually fall very near the cupola. The additional 20% is smaller particles. These are light enough to be carried further away by the wind and provide a serious nuisance in the form of soot and dirt for the surrounding area. Some of the particles (perhaps 5% of the total) are very small and are taken into the atmosphere or dispersed, and some of them are eventually inhaled.

Pollution Control.

Most gray-iron foundries operate either 8- or 16-ton-melt-per-hour capacity cupolas. The problem of putting emission control equipment in the cupolas is about equally expensive on the installation side for small and for larger cupolas. A "wet-cap" emission control system with 60% to 85% collection efficiency could be installed at between £500 and £4,500 per ton-hour cupola melt capacity - that is, £4,000 to £36,000 per cupola for an 8 ton cupola. High efficiency systems cost substantially more. "Bag-house" systems with 99% efficiency, cost from about £3,000 to £19,000 per ton for installed systems. In addition to those installation costs, there are substantial

operating maintenance expenses, generally proportionate to the cupola size. These extra operating costs range from about £250 to £1,400 per ton of hourly melt capacity per cupola for the simplest systems, up to £1,200 to £6,000 per hour for maximum effectiveness "bag-house" systems. Moreover, the industry pointed out, installation of such equipment raised the stated value of the plants, and thereby raised property taxes proportionately because most local authorities tax industrial properties on their values.

The Midlands' Problem

Iron foundries are scattered all over the country, but are generally concentrated in the Midlands. When the Midlands' authorities examined their air pollution problem they soon found that car and lorry emissions were the largest single cause. But they also found little enthusiasm on the part of the citizens for doing anything to control car and lorry emissions. Thus, to reduce air pollution, they have decided to concentrate on non-car/lorry causes and have set a goal of 39% reduction of Midlands air pollution. In an intitial report the foundries were informed that they might have to reduce their emissions by at least 71% to meet their share of the goal. The latest report, however, has suggested a reduction quota of 86.3% from the foundries. Most foundry owners have protested and stated they cannot meet such standards and stay in business and have suggested a compromise figure of 83%. They have stated that 83% emission control will require an investment of £2,500,000 which they are prepared to undertake but 86.3% emission control would require an investment of £7,500,000 which would mean closure for most of the foundries. In addition they have pointed out that the difference between 86.3% and 83% foundry emission control would change the overall cleanliness of the Midlands' atmosphere by only a tiny fraction of 1%. For a typical foundry, with a £300,000 sales and £30,000 profit before taxes each year, installation of the lower efficiency system would cost about £30,000, and maintenance charges per year would be about £6,000. Adherence to the higher standards would require installation of a higher efficiency "bag-house" system costing about £90,000 plus annual operating costs of £25,000.

Last, foundry operators pointed out that if they went out of business, the burden of the close-down would fall largely on unskilled workers in the area. "What you're going to do," bitterly protested one foundry owner, "is to throw a lot of poor people out of work, drive us out of business, and make it impossible for many businesses to find any place to buy iron castings. What happens when a business wants to get an iron part made and there are no longer small jobbing foundries around?"

Many of the issues in the case are both complex and difficult. You might try to answer the following questions.

Should concerned students picket the Midlands' foundries because the foundries are polluting the atmosphere?

What, if any, pollution standards should the Midlands' authorities establish for iron foundries?

What, if any, air pollution standards should the Government establish for iron foundries?

Would a tax per pound of particles emitted into the atmosphere be more or less efficient that an absolute standard of the sort described in the case?

Who should pay the cost of eliminating air pollution from iron foundries?

Continuous Student Evaluation Questionnaire

Traditionally in institutions of higher education little attention has been paid either to student opinion of the course and instructors, or to what students think they have learned. Final examination marks tend to be the only measuring rod of course output. It is possible that the subjective opinions of students and instructors, especially where non-traditional teaching methods have been used, are not only valid measures of course output but may be the critical factor in determining the optimal type of course for students, instructors and institutions.

Because of the potential of such information your careful and considered answers to the questions below are extremely important.

Continuous Student Evaluation Questionnaire

Surname: Forename:

What is your opinion of the overall value of this course, taking into account your enjoyment of the teaching methods and the amount which you feel you have learned so far? Circle the appropriate number on the scale.

LOW				HIGH
1	2	3	4	5

On the scale below, circle the number which you feel accurately reflects your enjoyment with the different methods of teaching to which you have been exposed during this course.

	LOW				HIGH
Lectures	1	2	3	4	5
Textbook	1	2	3	4	5
Programmed Text	1	2	3	4	5
Readings	1	2	3	4	5
Cases	1	2	3	4	5
Tutorials	1	2	3	4	5

Continuous Student Evaluation Questionnaire (2)

At the beginning of this course you were provided with a detailed course outline which set out the main topics to be covered in the course. Up to this time you have covered the following topics:

1. ECONOMIC CONCEPTS, ISSUES AND TOOLS
2. DEMAND
3. SUPPLY
4. PRICE AND OUTPUT DETERMINATION IN MARKETS
5. MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY

Allocate 100 points among the teaching methods listed below to reflect the contribution you consider they have made to your understanding of these topics.

Lectures	Text-book	Prog. Text	Readings	Cases	Tutorials	None of These	TOTAL
							100

You have now been studying economics for six weeks. The following questions refer to the use which you have made of each teaching method.

Lectures:	How many of the sixteen lectures have you attended?	_____
Textbook:	How many of the ten recommended chapters have you read?	_____
Programmed Text:	How many of the nine recommended chapters have you read?	_____
Readings:	How many of the three recommended readings have you read?	_____
Cases:	How many of the five cases have you completed?	_____
Tutorials:	How many of the five tutorials have you attended?	_____

End of Quarter Student Evaluation Questionnaire

Name:

How would you compare the amount of time spent on this course with the amount of time spent on other courses you took this quarter? Circle the appropriate number.

LOW				HIGH
1	2	3	4	5

If your answer to the above question was low (i.e. 1 or 2), please give the reason(s). Tick the appropriate box(es).

- ☐ High volume of written work in other courses
- ☐ High volume of reading work in other courses
- ☐ Economics is not my major subject
- ☐ I find the course uninteresting
- ☐ Other (specify).....

If your answer to the above question was high (i.e. 4 or 5), please give the reason(s). Tick the appropriate box(es).

- ☐ High volume of written work in tutorials in the course (e.g. essays, cases, etc.)
- ☐ High volume of reading work in the course
- ☐ Economics is my major subject
- ☐ I find the course interesting
- ☐ Other (specify).....

On the scale below, circle the number which reflects your enjoyment with the teaching methods used this quarter.

	LOW				HIGH
Lectures	1	2	3	4	5
Textbook	1	2	3	4	5
Programmed Text	1	2	3	4	5
Readings	1	2	3	4	5
Cases	1	2	3	4	5
Tutorials	1	2	3	4	5

End of Quarter Student Evaluation Questionnaire (2)

Circle the number which reflects your opinion of economics in relation to the characteristics listed.

		LOW				HIGH
Economics is:	relevant to real life	1	2	3	4	5
	interesting	1	2	3	4	5
	intellectually demanding	1	2	3	4	5

Allocate 100 points among the teaching methods to reflect the contribution each has made to your understanding of this course.

Lectures	Text-book	Prog. Text	Readings	Cases	Tutorials	None of These	TOTAL
							100

If the final examination this term were to reflect microeconomics comprehension accurately, in which of the following categories of marks would you appear? Circle the number which applies.

<20	21-30	31-40	41-50	51-60	61-70	71-80	>80
1	2	3	4	5	6	7	8

Knowing now what you do about this course, would you have taken this course if it were not required? Tick the appropriate box.

Yes ☐

No ☐

Each of the teaching methods used in this course has a number of characteristics which contribute to learning. Allocate 100 points among the characteristics for each method to reflect the extent to which each characteristic has contributed to your learning.

Method	Feedback	Gearing to individual needs	Applicability to real life	Other	TOTAL
Lectures					100
Textbook					100
Programmed Text					100
Readings					100
Cases					100
Tutorials					100

Students vary in their learning needs, some of which are listed below. Allocate 100 points among the teaching methods to reflect the extent to which each met your learning needs.

TECHNIQUE	Identifying areas of weakness	Clarifying concepts	Connecting different concepts	Applying concepts to real life problems	Analysing complex situations	Evaluating economic policy decisions	TOTAL
Lectures							100
Textbook							100
Programmed Text							100
Readings							100
Cases							100
Tutorials			65				100

End of Quarter Student Evaluation Questionnaire (4)

On the scale below circle the number which reflects your overall rating of:	LOW				HIGH
Your professor.....	1	2	3	4	5
Your tutor.....	1	2	3	4	5

Circle the number (or x) which reflects your opinion of the different characteristics of your lecturer and tutor during this course:

	Professor						Tutor					
	NO OPINION	LOW				HIGH	NO OPINION	LOW				HIGH
Imparts enthusiasm.....	x	1	2	3	4	5	x	1	2	3	4	5
Knows subject matter well.	x	1	2	3	4	5	x	1	2	3	4	5
Is well prepared for class	x	1	2	3	4	5	x	1	2	3	4	5
Demonstrates practical applications of course material.....	x	1	2	3	4	5	x	1	2	3	4	5
Presents material with clarity.....	x	1	2	3	4	5	x	1	2	3	4	5
Speaks clearly and distinctly.....	x	1	2	3	4	5	x	1	2	3	4	5
Uses the blackboard effectively.....	x	1	2	3	4	5	x	1	2	3	4	5
Is available outside class.....	x	1	2	3	4	5	x	1	2	3	4	5
Is sensitive to students' level of understanding and is responsive to students' questions.....	x	1	2	3	4	5	x	1	2	3	4	5
Has respect for students' opinions.....	x	1	2	3	4	5	x	1	2	3	4	5
Provides helpful comments on assignments.....	x	1	2	3	4	5	x	1	2	3	4	5

Which two aspects of the course and/or professor and/or tutor did you like:

(a) best: _____

(b) least: _____

Instructor Questionnaire

The purpose of this questionnaire is twofold; (1) to collect data on instructor characteristics which may affect student economics comprehension at the end of the course and/or student attitude towards the subject, and (2), to collect instructor opinion of different teaching techniques and plans for adoption and implementation. Please include a curriculum vitae listing publications and current research.

1. College or University: _____

2. Surname: _____ Initials: _____

3. Rank:
   Professor..... _____
   Associate Professor..... _____
   Assistant Professor..... _____
   Instructor..... _____
   Other (specify). _____
   _____

4. Degree, Institution, and year of award:
   e.g., B.A, Fresno State University, 1958
   M.A, Harvard University, 1960
   Ph.D, University of California at San Diego, 1968

   _____

   _____

5. Teaching Experience:

Institution	Dates	Courses

6. Number of Quarters/Semesters in which you previously have taught this course..... _____

7. In how many sections are you teaching this course currently?..... _____

8. For how many hours per week, on average, are you involved in official university activities?..... _____
   e.g., teaching, administration, research, etc.

9. How is your time allocated during the current academic year (excluding summer)?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

10. How was your time allocated during the last academic year?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

11. How will your time be allocated during the coming summer?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

12. How was your time allocated during the last summer?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

Course Information

1. How many office hours, if any, do you hold for this course? _____

2. What percentage of students in this course come to these office hours? ..... _____

3. During 'lecture' hours, what percentage of your time is spent:
   (a) in lecturing? ..... _____
   (b) in class discussion? ..... _____

4. During 'tutorial' hour(s), what percentage of time is spent
   (a) in lecturing? ..... _____
   (b) in discussion? ..... _____
   (c) other? Specify _____

   _____

5. Allocate 100 points among the teaching methods to reflect the contribution you believe each has made on average to the economics comprehension of students in this course.

Lectures	Text-book	Prog. Text	Readings	Cases	Tutorials	None of These	TOTAL
							100

Instructor Questionnaire (3)

6. Consult the Course Management Plan and indicate, by week, how many hours you expect students to study for this course, excluding lectures and tutorials.

Wk.	1	2	3	4	5	6	7	8	9	10	..	..	..	..	..	..	..
Hrs.																	

7. Students will complete the faculty evaluation form below. We intend to run regressions in which overall rating of the instructor will be the dependent variable and in which the listed attributes will be the independent variables. The regression coefficients can be thought of as the weights students attach to instructor attributes.

First, what weights would you assign to each of the instructor attributes listed? (Allocate 100 points). Second, what weights do you think your students will assign to each of the instructor attributes? (Allocate 100 points). Third, what important instructor attributes, if any, do you think have been omitted from the list? Fourth, how much of the variance in overall ratings do you think will be explained by the instructor attributes listed? (i.e, estimate the R^2).

Attributes	7.1 Your Weights (Σ = 100)	7.2 Expected Student Weights (Σ = 100)
Imparts enthusiasm.....		
Knows subject matter well.....		
Is well prepared for class.....		
Demonstrates practical applications of course material.....		
Presents material with clarity.....		
Speaks clearly and distinctly.....		
Uses blackboard effectively.....		
Is available outside class.....		
Is sensitive to students' level of understanding and is responsive to students' questions.....		
Has respect for students' opinions.....		
Provides helpful comments on assignments.....		
Totals:	100	100

7.3 Important instructor attributes missing from the list above:_____

_____

7.4 Anticipated percentage of variance explained (i.e., estimated R^2)___.

Answer Sheet for Section A : Objective Questions : Final Examination
Microeconomics

First name: Last name:

Please circle the number which you think corresponds to the correct answer.
Erase completely any answer you wish to change.

Q. 1	1	2	3	4
Q. 2	1	2	3	4
Q. 3	1	2	3	4
Q. 4	1	2	3	4
Q. 5	1	2	3	4
Q. 6	1	2	3	4
Q. 7	1	2	3	4
Q. 8	1	2	3	4
Q. 9	1	2	3	4
Q.10	1	2	3	4

Q.11	1	2	3	4
Q.12	1	2	3	4
Q.13	1	2	3	4
Q.14	1	2	3	4
Q.15	1	2	3	4
Q.16	1	2	3	4
Q.17	1	2	3	4

MICRO CORE COURSE

2.3. TIPS COURSE PACKAGE

2.3.1	Micro Units	1	Economic Concepts, Issues, and Tools
		2	Demand
		3	Supply
		4	Price and Output Determination in Markets
		5	Marginal Equivalency Conditions and Economic Efficiency
		6	The Organisation of Industries
		7	Public Goods and Externalities
		8	Income Distribution
		9	International Trade
		10	Concepts Revisited
2.3.2	Lectures		25 x 50 Minute Lectures
2.3.3	Texts		Economics (Samuelson); Microeconomics (Lumsden, Attiyeh, Bach)
2.3.4	Readings	1	The Economic Organisation of a Prisoner of War Camp, R A Radford
		2	One Dutch man hour = Two British man hours, William Rees-Mogg, The Times, 28.9.1977
		3	The Dynamics of 'Shortage' of Engineers and Scientists, K Arrow and W Capron
		4	The Economic Common Sense of Pollution, Larry E Ruff
		5	A Fable of Trade and Technology, J C Ingram
2.3.5	Assignments	1	1 Mathematical Survey
		2	9 TIPS Surveys
		3	Mid Term Examination (50 Minutes - Objective)
		4	Mid Term Examination (50 Minutes - Essays)
		5	Final Examination (3 Hours - Objectives + Cases + Essays)
2.3.6	Remedial Tutorials	1	1 Mathematics Tutorial
		2	9 Tutorials
2.3.7	Research Requirements	1	Student Information Questionnaire
		2	Pre-Test in Economics
		3	Psychological Inventory
		4	Continuous Student Evaluation Questionnaire
		5	End of Quarter Student Evaluation Questionnaire
		6	Instructor Questionnaire

	Lecture 1	Lecture 2	Lecture 3
LECTURE CONTENT	Introduction and Overview Description of TIPS MICRO UNIT 1: ECONOMIC CONCEPTS ISSUES, AND TOOLS 1.1 Scarcity and Choice 1.2 Preferences, Resources, Exchange and Economic Efficiency	1.3 Marginal Analysis and Opportunity Cost 1.4 Different Economic System	MICRO UNIT 2: DEMAND 2.1 The Concept of Demand 2.2 Influences on Demand 2.3 Assumptions in the Theory of Demand
TEXTS	Lumsden, Attiyeh, Bach: Microeconomics, Ch 1, 2 Samuelson: Economics, Ch 1,2,3	Microeconomics, Ch 2 Economics, Ch 43	Microeconomics, Ch 3 Economics, Ch 22
READING			
ASSIGNMENTS	Student Information Questionnaire Psychological Inventory Pre-Test in Economics Basic Mathematical Survey	TIPS Survey 1.1	
TUTORIAL		(Remedial) Mathematics Tutorial	Micro Unit 1, 1.1 - 1.4

	Lecture 4	Lecture 5	Lecture 6
LECTURE CONTENT	MICRO UNIT 2: DEMAND (cont'd) 2.4 Implications of the Assumptions 2.5 Individual Demand	2.6 Market Demand 2.7 Characteristics of Demand	MICRO UNIT 3: SUPPLY 3.1 The Concept of Supply 3.2 Influences on Supply
TEXTS	Microeconomics, Ch 3 Economics, Ch 22	Microeconomics, Ch 4 Economics, Ch 22	Microeconomics, Ch 5 Economics, Ch 23, 27
READING	The Economic Organization of a Prisoner of War Camp, R A Radford		
ASSIGNMENTS		TIPS Survey 2.1	
TUTORIAL			Micro Unit 2, 2.1 - 2.7

	Lecture 7	Lecture 8	Lecture 9
	MICRO UNIT 3: SUPPLY (cont'd) 3.3 Assumptions in the Theory of Supply 3.4 Implications of the Assumptions	3.4 Implications of the Assumptions (cont'd)	3.5 Firm Supply in the Short Run
TEXTS	Microeconomics, Ch 6 Economics, Ch 23, 27	Microeconomics, Ch 6 Economics, Ch 23, 27	Microeconomics, Ch 5, 6 Economics, Ch 23, 27
READING	One Dutch man hour = two British man hours, William Rees-Mogg, The Times, 28.9.77		
ASSIGNMENTS		TIPS Survey 3.1	
TUTORIAL			Micro Unit 3, 3.1 - 3.4

	Lecture 10	Lecture 11	Lecture 12
LECTURE CONTENT	MICRO UNIT 3: SUPPLY (cont'd) 3.5 Firm Supply in the Short Run (cont'd) 3.6 Industry Supply in the Short Run	3.7 Firm Supply in the Long Run 3.8 Industry Supply in the Long Run 3.9 Characteristics of Supply	MICRO UNIT 4: PRICE AND OUTPUT DETERMINATION IN MARKETS 4.1 The Concept of a Market 4.2 Market Supply and Demand
TEXTS	Microeconomics, Ch 6 Economics, Ch 23	Microeconomics, Ch 7 Economics, Ch 24	Microeconomics, Ch 8 Economics, Ch 24
READING			
ASSIGNMENTS		TIPS Survey 3.2 Mid Term Examination (Objective)	
TUTORIAL			Micro Unit 3, 3.4 - 3.9

	Lecture 13	Lecture 14	Lecture 15
LECTURE CONTENT	MICRO UNIT 4: PRICE AND OUTPUT DETERMINATION IN MARKETS (cont'd) 4.3 The Operation of Markets 4.4 Changes in Market Equilibrium	4.5 Intervention in the Market 4.6 Dynamic Adjustments in the Market	MICRO UNIT 5: MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY 5.1 The Marginal Equivalency Conditions 5.2 Resource Allocation and Profit Maximising Behaviour in the Short Run
TEXTS	Microeconomics, Ch 8 Economics, Ch 4, 20	Microeconomics, Ch 8 Economics, Ch 4, 20	Microeconomics, Ch 8 Economics, Ch 4, 20
READING		The Dynamics of 'Shortage' of Engineers and Scientists, K Arrow and W Capron	
ASSIGNMENTS		TIPS Survey 4.1	
TUTORIAL			Micro Unit 4, 4.1 - 4.6

	Lecture 16	Lecture 17	Lecture 18
LECTURE CONTENT	MICRO UNIT 5: MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY (cont'd) 5.3 Resource Allocation and Profit Maximising Behaviour in the Long Run 5.4 The Wonderful World of Adam Smith vs. The Real World	MICRO UNIT 6: THE ORGANISATION OF INDUSTRIES 6.1 Characteristics of Firms 6.2 Perfect Competition	6.3 Monopoly and Economies of Scale 6.4 Imperfect Competition 6.5 Regulation and Economic Efficiency
TEXTS	Microeconomics, Ch 9 Economics, Ch 23, 24	Microeconomics, Ch 11 Economics, Ch 25	Micreconomics, Ch 11 Economics, Ch 25, 26
READING			
ASSIGNMENTS	Continuous Student Evaluation Questionnaire Mid Term Examination (Essay)	TIPS Survey 5.1	
TUTORIAL			Micro Unit 5, 5.1 - 5.4

	Lecture 19	Lecture 20	Lecture 21
LECTURE CONTENT	MICRO UNIT 7: PUBLIC GOODS AND EXTERNALITIES 7.1 Public Goods vs. Private Goods 7.2 Public Goods, Collective Action and Economic Efficiency	7.3 Externalities: Positive and Negative 7.4 Externalities, Collective Action, and Economic Efficiency	MICRO UNIT 8: INCOME DISTRIBUTION 8.1 Marginal Productivity 8.2 Economic Rent
TEXTS	Microeconomics, Ch 10 Economics, Ch 8. 26	Microeconomics, Ch 10 Economics, Ch 8, 26	Microeconomics, Ch 12 Economics, Ch 27, 28
READING		The Economic Common Sense of Pollution, Larry E Ruff	
ASSIGNMENTS		TIPS Survey 6.1 TIPS Survey 7.1	
TUTORIAL			Micro Unit 6, 6.1 - 6.5 Micro Unit 7, 7.1 - 7.4

	Lecture 22	Lecture 23	Lecture 24
LECTURE CONTENT	MICRO UNIT 8: INCOME DISTRIBUTION (cont'd) 8.3 Monopsony 8.4 Trade Unions 8.5 Income Distribution, Collective Action, and Economic Equity	MICRO UNIT 9: INTERNATIONAL TRADE 9.1 Gains from Exchange 9.2 Theory of Comparative Advantage 9.3 Tariffs and Quotas 9.4 Exchange Rates	MICRO UNIT 10: CONCEPTS REVISITED 10.1 Consumer Rationality 10.2 Marginal Cost Pricing 10.3 Income, Wealth and Power Distribution
TEXTS	Microeconomics, Ch 12 Economics, Ch 29, 30	Microeconomics, Ch 9 Economics, Ch 34, 35	Economics, Ch 31, 32
READING		A Fable of Trade and Technology, J C Ingram	
ASSIGNMENTS		TIPS Survey 8.1 TIPS Survey 9.1	
TUTORIAL			Micro Unit 8, 8.1 - 8.5 Micro Unit 9, 9.1 - 9.4

Lecture 25

LECTURE CONTENT	MICRO UNIT 10: CONCEPTS REVISITED (cont'd) 10.4 Competition vs. Co-operation; Capitalism vs. Maoism 10.5 Legitimate Role of Government: Friedman vs. Galbraith
TEXTS	Economics, Ch 31, 32
READING	
ASSIGNMENTS	TIPS Survey 10.1 (Review) End of Quarter Student Evaluation Questionnaire Final Examination
TUTORIAL	Micro Unit 10, 10.1 - 10.5 and Review

Answer Sheet for TIPS Micro Survey 1.1

1 -

Last name: First name:

Student number: | | | | | | | |

8 -

16 -

Please fill in the circle which you think corresponds to the correct answer. Erase completely any answer you wish to change.

	1	2	3	4
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1 The concept of scarcity means that resources

1 are not available in sufficient quantities to satisfy any individual's wants.

2 are not available in sufficient quantities to satisfy all wants for them.

3 cannot be increased in quantity to any significant extent.

4 are of primary importance in satisfying the wants of society.

2 It has been said that the fundamental fact of scarcity is no longer applicable to the U.S. economy. This statement is

1 true, because the U.S. is one of the richest countries in the world.

2 true, because the resources that are scarce in the U.S. can be imported from abroad.

3 false, because not all the wants of all U.S. citizens are fully satisfied.

4 false, because a significant number of families in the U.S. have incomes below what is known as the poverty level.

3 Which of the following is correct?

A A free tyre with every four purchased is an example of a free good.

B Green Shield stamps with every gallon of petrol is an example of a free good.

C Fresh air in an air-conditioned building in Oxford Street is an example of a free good.

1 B only
2 B and C only
3 A, B and C
4 Neither A nor B nor C

4 The fact that individuals' tastes and preferences differ implies that

1 no two individuals ever buy the same quantities of any given good in a given time period.

2 free exchange of goods and services can increase society's welfare without an increase in the quantities of goods and services available.

3 an individual's wants can never be fully satisfied until all a nation's resources are efficiently utilised.

4 a nation's wants can never be fully satisfied.

5 A given quantity of goods can be produced in a variety of ways using different amounts of two resources, A and B.

Method 1 uses 5 units of A and 10 units of B
Method 2 uses 10 units of A and 4 units of B
Method 3 uses 6 units of A and 4 units of B

Which of the following statements is correct regarding engineering efficiency?

1 Method 2 is more efficient than method 1.

2 Method 3 is more efficient than method 2.

3 Method 3 is more efficient than method 2 and method 1.

4 Insufficient information exists to determine whether one method is more efficient than any other.

6 Which of the following is correct?

A society which is capable of producing more goods and services in any given year compared to the previous, must

A have access to superior productive techniques each year.

B have more resources available each year.

1 A only
2 B only
3 A or B or both A and B
4 Neither A nor B

7 A government has completed a cost-benefit study showing that the annual value of the services from an additional 100 miles of motorway would be £4 million and the annual value of the services from an additional airport would £3 million. To achieve the most efficient use of resources the government should

1. construct only 75 miles of motorway (that is 3/4 of 100).

2 construct only the 100 miles of motorway.

3 construct both the 100 miles of motorway and the airport.

4 not necessarily construct either any additional motorway or the airport.

8 This question is based on the following statement:

"The problem facing the government is whether to build a new motorway system or to improve public transport throughout the country during the next three years. Resources for both projects are not available. It must be one or the other."

The opportunity cost of the new motorway system mentioned in the paragraph above is:-

1 greater than the economy can afford.

2 an improved public transport system.

3 the money required to pay for it.

4 the resources required to build it.

9 The following table shows the extra daily benefit and costs that would be derived from adding successive terminals at Heathrow airport in order to increase passenger handling capacity:

	Additional Capacity (Passengers)	Additional Benefits (£)	Additional Costs (£)
First terminal	1,000	45,000	40,000
Second terminal	1,000	35,000	25,000
Third terminal	1,000	25,000	20,000
Fourth terminal	1,000	15,000	18,000

How large an expansion programme should the airport undertake to maximise net benefit (total benefit minus total cost) and why?

1 Build one terminal since that provides the greatest marginal benefit.

2 Build two terminals since that is the level of expansion where the difference between marginal benefit and marginal cost is greatest.

3 Build three terminals since that is the largest number of new terminals for which marginal benefit exceeds marginal cost.

4 Build four terminals since the programme would involve the largest total benefit and the lowest marginal cost.

10 Which, if any, of the following statements is correct?

A For centrally planned economies, since all members of the labour force are allocated jobs, scarcity is not a problem.

B For capitalist economies, since workers occasionally become unemployed, scarcity is not always a problem.

C For both centrally planned and market economies, since resources are insufficient to satisfy all wants, scarcity is a problem.

1 A only
2 B only
3 C only
4 None of the above

11 Which of the following statements is correct?

A What, how and for whom goods and services are produced are problems common to traditional, command and market economies.

B In traditional, command and market economies all land is owned privately but other resources may be privately and/or collectively owned.

C In traditional and command economies each individual receives the same amount of goods and services whereas in market economies individuals receive an amount of goods and services equivalent to the resources each owns.

1 A only
2 A and B only
3 A and C only
4 A, B and C

12 Which, if any, of the following statements would be valid for any type of economic system?

A The opportunity cost of a unit of land is the value it would create when put to its best alternative use.

B The opportunity cost of a good is the value of the other goods that must be foregone in order to produce it.

1 A only
2 B only
3 Both A and B
4 Neither A not B

Answer Sheet for TIPS Micro Survey 2.1

1 -

Last name: First name:

Student number: | | | | | | | |

8 - 1

16 - 2

Please fill in the circle which you think corresponds to the correct answer. Erase completely any answer you wish to change.

	1	2	3	4
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1 Which of the following describes the concept of demand?

A How fully a good satisfies an individual's wants

B How much of a good an individual would be prepared to buy at different prices

1 A only
2 B only
3 A and B
4 Neither A nor B

2 A society producing only sandwiches and cups of coffee has resources capable of producing the following:

Sandwiches	Cups of Coffee
20,000	0
10,000	10,000
6,000	14,000
0	20,000

Which set of outputs will satisfy society's wants as fully as possible?

1 No single set is optimal
2 Any set is optimal as long as all of society's resources are being utilised
3 Either 10,000 sandwiches + 10,000 cups of coffee
or 6,000 sandwiches + 14,000 cups of coffee
4 Insufficient information exists to determine the optimal set of outputs

3 A traveller arrives at an airport and discovers that the taxi fare to the city is £5. Which of the following economic variables will influence the average individual's decision whether or not to hire a taxi?

A The price of the airport bus to the city

B The individual's income

C The price of a new taxi

1 B only
2 A and B only
3 A and C only
4 A and B and C

4 In some countries the sale of pornographic magazines is prohibited. Therefore it can be concluded that

1 in those countries no individual has any demand for such magazines
2 some people in those countries believe that the reading of such magazines is harmful to society
3 it is bad for people to read such magazines
4 individuals collectively in those countries have no demand for such magazines

5 Families usually shop carefully for a new car and a new washing machine but do not care which farmer grows the wheat for their daily bread.

In terms of the assumptions which underlie demand theory, which of the following accounts for this behaviour?

1 Wheat is perceived as a homogeneous good
2 In their major characteristics there is no real difference in cars of similar size
3 Washing machines are a homogeneous good
4 Since bread is cheap, people consume it until its marginal utility is zero.

6 On a desert island, only two foods are available - fish and coconuts. Some days the castaway eats well; other days he is hungry.

Which of the following statements is true?

A On any given day, the higher the marginal utilities of fish and coconuts the hungrier he is
B On any given day, the lower the marginal utilities of fish and coconuts the hungrier he is
C On any given day, when the marginal utilities are zero, his total utility is zero

1 A only
2 B only
3 A and C only
4 B and C only

7 A utility maximising individual in equilibrium buys hot dogs at 25p each and glasses of beer at 50p each. He derives 40 utils from the fourth and last hot dog he buys. How many utils does he derive from the last glass of beer he buys in the same time period?

1 20
2 40
3 80
4 160

8 In a village in Ireland in the 19th century, all income was earned by producing linen and all family income was spent on food. When the price of meat fell, family A bought fewer potatoes and said it was better off. Family B said it was neither better nor worse off. Assuming the "law of diminishing marginal utility" to hold, which of the following must have been true?

A Family A's marginal utility of meat must have fallen
B Family B must not have consumed any meat either before or after the price change

1 A only
2 B only
3 A and B
4 Neither A nor B

9 A consumer's typical demand curve is downward sloping to the quantity axis for which of the following reasons?

A At lower prices the consumer buys more of the good in question in place of other goods which are now relatively more expensive

B At lower prices, the consumer can buy all he bought of the good at the higher prices and with the money left over buy still more

1 A only
2 B only
3 Both A and B
4 Neither A nor B

10 Which of the following could cause a shift in an individual's demand curve for beer?

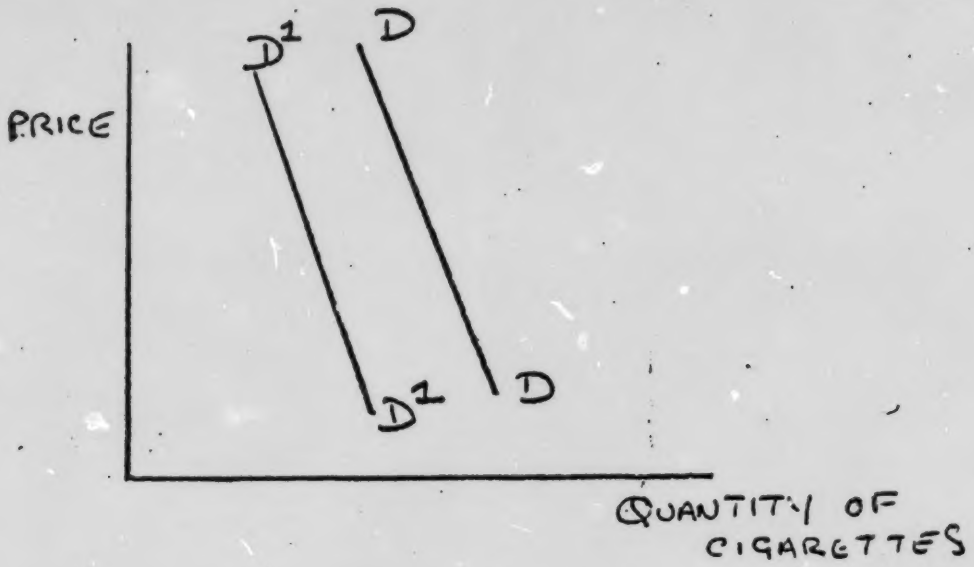
A A change in the price of beer

B A change in the price of wine

C A change in the individual's income

1 A only
2 A and B only
3 A and C only
4 B and C only

11



In the above diagram which of the following factors is likely to have caused the demand curve for cigarettes to shift from DD to D^1D^1?

A The B.M.A.'s Report suggesting a link between cigarette smoking and premature death

B A decrease in the price of cigars and pipe tobacco, cigar and pipe smoking being substitutes for cigarette smoking for many people

C An increase in smokers' incomes

1 A only
2 A and B only
3 A and C only
4 A, B and C

12 If beef is a substitute for lamb, and mint jelly is a complementary good to lamb, which of the following is correct?

An increase in the price of lamb, cet.par., will lead to

1 a decrease in the quantity of beef demanded
2 an increase in the quantity of beef demanded and an increase in the quantity of mint jelly demanded
3 a decrease in the quantity of mint jelly demanded
4 an increase in the quantity of mint jelly demanded and a decrease in the quantity of beef demanded

13 In travelling about a city, most people use either the underground or the bus. Suppose all underground fares were doubled, but bus fares remained unchanged. How would the underground fare increase affect the total fare revenue?

1 It would increase for buses but might increase or decrease for the underground
2 It would increase for the underground but might increase or decrease for buses
3 It would increase for both the underground and buses
4 It would increase for the underground and remain unchanged for buses

14 The University Union operates so as to raise just enough revenue to cover its costs. Its revenue comes from a membership fee of £5 and a price of £0.50 for its nightly film in the main lounge. Attendance at the film results in overcrowding of the lounge. In order to reduce the crowding without increasing total receipts, if film demand is elastic and membership demand is inelastic, the Club should

1 raise both the membership fee and the film price

2 lower both the membership fee and the film price

3 raise the film price and lower the membership fee

4 lower the film price and raise the membership fee

Answer Sheet for TIPS Micro Survey 3.1

1 -

Last name: First name:

Student number: | | | | | | | | |

8 -

16 -

Please fill in the circle which you think corresponds to the correct answer. Erase completely any answer you wish to change.

	1	2	3	4
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0

101

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1 The economy of Mythica is not producing its maximum output of goods and services. Which of the following statements is correct?

A Goods are not being produced in an engineering efficient manner but all resources are employed in production

B Goods are being produced in an engineering efficient manner but not all resources are employed in production

C Goods are not being produced in an engineering efficient manner and not all resources are employed in production

1 A only
2 B only
3 A or B only
4 A or B or C

2 Which of the following is correct?

Economic efficiency is achieved in an economy when

A society's wants are satisfied as fully as possible

B all goods and services are produced using the least possible inputs of resources

C all resources are employed

1 C only
2 A and B only
3 B and C only
4 A and B and C

3 A firm which produces a range of cosmetic products moves from Britain to West Germany. In comparing monthly sales, it discovers that, in West Germany, it supplies a greater proportion of high cost items than it did in Britain. Which of the following factors has not caused the change in the firm's sales?

A Higher income levels in West Germany

B Length of the period being compared

C Prices of different cosmetic products

1 A only
2 B only
3 B and C only
4 A, B and C

4 In the theory of supply, the term "long run" used in connection with a firm's decision making refers to

1 the number of years over which a firm can expect to produce with unaltered factors of production
2 any period of time between 3 and 5 years in which a firm can increase or decrease all the factors of production it employs
3 any period of time over 5 years in which a firm can increase or decrease all the factors of production it employs
4 the time period in which a firm can increase or decrease all the factors of production it employs

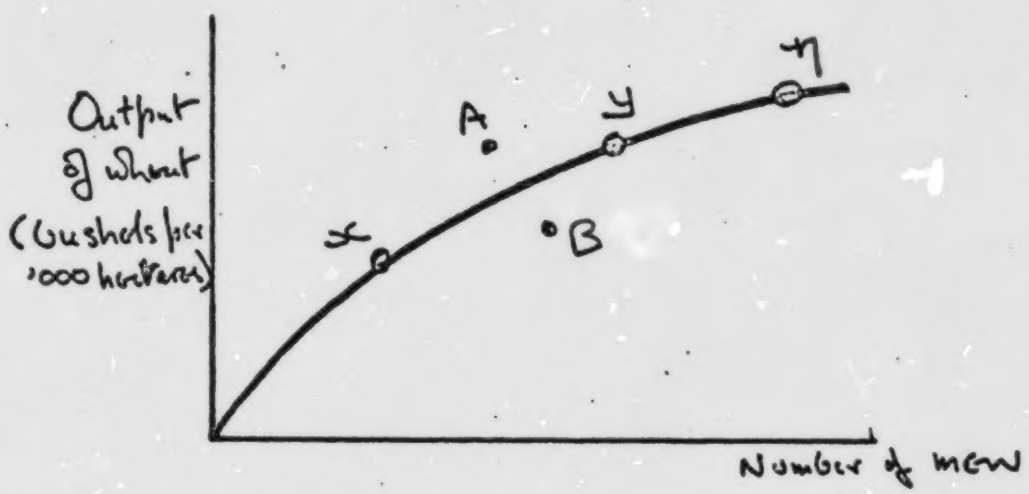
5 A firm must make maximum profits when

A it raises the maximum amount of revenue from selling its produce

B its products are produced at the lowest possible cost per unit of output

1 A only
2 B only
3 Both A and B
4 Neither A nor B

Questions 6 and 7 are based on the diagram below.



6 Which of the following is correct?

A The diagram provides information about engineering inefficient outputs

B The diagram provides information about economic efficiency since wheat is always in demand because of world food shortages

1 A only
2 B only
3 A and B
4 Neither A nor B

7 Which of the following statements is correct?

A Points X, Y and Z are the only attainable outputs

B B is an attainable output

C A is an unattainable output even in the long run

1 A only
2 B only
3 C only
4 Neither A nor B nor C

—

8 Total output divided by the number of units of a variable factor used is a definition of

1 marginal product of that factor
2 average product of that factor
3 real cost of production
4 variable cost of production

9 A recent economics graduate was hired by a highly competitive restaurant and was assigned the task of improving efficiency in the restaurant. It was felt that a non-optimum combination of two variable factor inputs was being employed. The economist was able to make the following calculations:

	Marginal Product	Cost per Unit of Factor Input
Factor A	6 lunches	£ 3.00
Factor B	3 lunches	£ 1.00

(Each lunch sells for £2.00)

The economist correctly diagnosed the problem and advised the restaurant owner on the appropriate course of action. That course was to

1 hire more A and more B

2 hire more A but no more B

3 hire more B but no more A

4 hire less B and less A

10 Which of the following is true?

A The higher the marginal product of a factor input, the lower the marginal cost of output

B The higher the average product of a factor input, the lower the average cost of output

C The higher the costs of fixed factor inputs, the lower the marginal cost of output

1 A only

2 C only

3 A and B only

4 A, B and C

11 For a firm with given plant and equipment, which of the following will always decrease as output increases?

1 Total variable cost

2 Total fixed cost

3 Variable cost per unit

4 Fixed cost per unit

12 In one of the largest manufacturing firms in Britain, an agreement was reached recently between management and unions that wage rates would increase proportionately with average labour productivity. Last year the firm increased its plant and equipment, retained all of its labour force fully employed and enjoyed a 6% increase in output. The unions have gone on strike because management has refused to pay any wage increase. According to the agreement which of the following is correct?

1 The unions should not receive a wage increase because the 6% increase in output is attributable to the increase in plant and equipment

2 The unions should receive a wage increase because average labour productivity has increased

3 The unions should receive a wage increase only if the firm increases its plant and equipment by less than 6%

4 Whether the unions should receive an increase according to the agreement cannot be determined from the given information

13 A family will be away from its house for six months. The monthly mortgage payment on the house is £130. The local services, to be paid by the owner, cost £30 per month if the house is occupied; otherwise 0. If the family wishes to minimise its losses (or maximise its gains) from the house, it should rent for as much as the market will bear as long as monthly rent is above the following: (Assume wear and tear, etc., to be be zero whether or not the house is occupied.)

1 £0
2 £30
3 £130
4 £160

14 Which of the following could cause the short run supply curve of an industry to shift to the right?

A An increase in the number of firms in the industry
B An increase in the cost of the variable factor of production
C A decrease in the cost of the variable factor of production

1 A only
2 C only
3 A and C only
4 A, B and C

Answer Sheet for TIPS Micro Survey 3.2

1 - 2

Last name: First name:

Student number: | | | | | | | |

8 - 1

16 - 2

Please fill in the circle which you think corresponds to the correct answer. Erase completely any answer you wish to change.

	1	2	3	4
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1 Which of the following is correct?

For a firm in the long run

1 fixed costs tend to be greater than variable costs

2 variable costs tend to be greater than fixed costs

3 all costs are fixed costs

4 all costs are variable costs

2 Which of the following is correct?

If a firm is maximising profit in the long run, price equals

A short run marginal cost

B long run marginal cost

1 A only
2 B only
3 A and B
4 Neither A nor B

3 Which of the following is correct?

The long run supply curve of a competitive industry is found by adding

A the long run marginal cost curves of all firms in the industry

B the long run marginal cost curves above the average cost curves of all firms in the industry

C the long run average cost curves of all firms in the industry

1 A only
2 B only
3 C only
4 Neither A nor B nor C

4 If an increase in the demand for aircraft causes the price of aluminium to rise, how will this, other things unchanged, affect the industry which produces aluminium beer cans?

1 Its output will increase
2 Its long run supply curve will shift to the right
3 Its long run supply curve will shift to the left
4 Its long run supply curve will not be affected

5 Which of the following is correct?

If a firm is producing output at a point where diminishing returns have set in

A each additional unit of output will be more expensive to produce
B each additional unit of output will require increasing amounts of the factor of production being increased
C the marginal product of the variable factor of production decreases as the quantity used increases

1 A only
2 A and B only
3 B and C only
4 A, B and C

6 Which of the following is correct?

The term "increasing-cost" industry refers to an industry

1 whose fixed costs exceed its variable costs
2 whose long run supply curve slopes up to the right
3 whose short run marginal costs are rising
4 that raises its prices if costs go up

Answer Sheet for TIPS Micro Survey 4.1

1 - 2

Last name: First name:

Student number: | | | | | | | |

8 - 1

16 - 2

Please fill in the circle which you think corresponds to the correct answer. Erase completely any answer you wish to change.

1		1	2	3	4	7		1	2	3	4
		0	0	0	0			0	0	0	0
2		1	2	3	4	8		1	2	3	4
		0	0	0	0			0	0	0	0
3		1	2	3	4	9		1	2	3	4
		0	0	0	0			0	0	0	0
4		1	2	3	4	10		1	2	3	4
		0	0	0	0			0	0	0	0
5		1	2	3	4	11		1	2	3	4
		0	0	0	0			0	0	0	0
6		1	2	3	4	12		1	2	3	4
		0	0	0	0			0	0	0	0

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1 Which of the following is correct?

A market for a good, service, or resource exists when

1 there is a specific location where trade can take place.

2 individuals have something which they can sell.

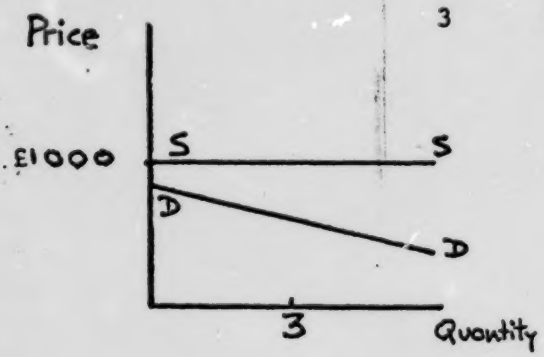
3 individuals wish to buy something.

4 potential buyers are in communication with potential sellers.

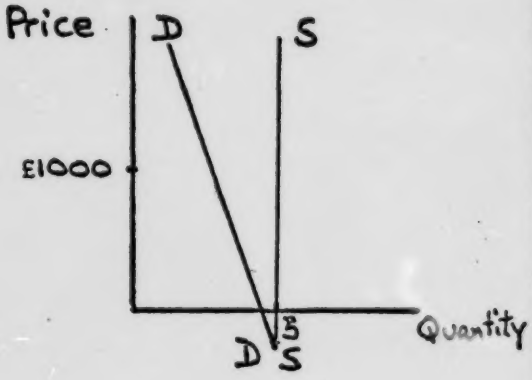
2 A local store deals in second hand musical instruments. It offered three pianos for sale at £1,000 each, but nobody wished to buy the pianos at that price. Over a period of months the store manager gradually reduced the asking price for the pianos but he was still unable to find buyers. Eventually, a representative of a music and drama college called at the store and offered to take the pianos at zero price on condition that the store paid the college for their removal. The store manager agreed.

Which of the following diagrams represents the market for the pianos?

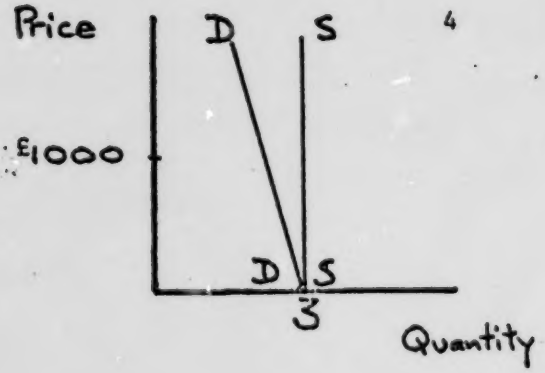
1



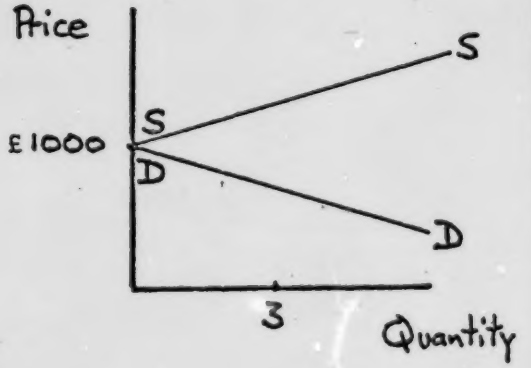
3



2



4



3 Suppose the market for a newly developed gold-plated pencil were represented by the demand and supply schedules below.

Price (£)	Quantity Demanded per Day	Quantity Supplied per Day
600	0	1000
500	0	700
400	0	350
300	0	0
250	0	0
200	50	0
150	100	0
100	150	0
50	250	0

Which of the following is correct?

1 Equilibrium quantity would lie between 50 and 350 pencils per day.

2 No exchange would occur.

3 Suppliers would have to lower their prices to £200 since that is the maximum price consumers are willing to pay.

4 Consumers would have to pay £400 to obtain pencils since that is the minimum price at which suppliers are prepared to sell.

4 The price system reacts to excess demand for a good in the short run by

1 lowering the price and profits of firms producing the good.

2 raising the price and producer profits.

3 lowering the price but increasing producer profits.

4 raising the price but lowering producer profits.

5 When influenza vaccine first became available in the US, the government set the price equal to the cost of production. At that price, output was insufficient to fill orders, and the government regulated the distribution of the vaccine. Had the vaccine been sold privately without government intervention,

1 the price would have been higher

2 the price would have been lower

3 the price would have been the same.

4 whether the price would have been higher or lower cannot be determined from the information given.

6 If the equilibrium price prevails in the market for a good

A no consumers would buy units of the good if the price were higher.

B excess demand and excess supply are both zero.

C no producers would sell units of the good if the price were lower.

Which of the following is correct?

1 A only
2 B only
3 A and C only
4 A, B, and C

7 A city has decided to build 5,000 dwelling units and to lease them to low income persons at a rental below cost and the going rate in the private market. Other things, such as population, being the same, what effect would you expect this to have on the market for private housing?

1 A decrease in rent, followed later by a decrease in the quantity supplied.

2 A decrease in tenants followed later by an increase in rents.

3 An increase in rents followed later by an increase in the quantity supplied.

4 No effect, because the poor persons who will be eligible for the 5,000 city built dwelling units cannot afford acceptable private housing.

8 Suppose the market for golf clubs were initially in equilibrium. If there were a considerable increase in the number of people wishing to play golf and, simultaneously, a decrease in every golf club manufacturer's production costs due to the use of a new metal compound, which of the following statements would be correct?

1 The equilibrium price of golf clubs might rise, fall, or remain at the same level, but the equilibrium quantity would increase.

2 The equilibrium price of golf clubs would rise, but the equilibrium quantity might increase, decrease, or remain at the same level.

3 The equilibrium price of golf clubs would fall, and the equilibrium quantity would increase.

4 The equilibrium price of golf clubs would fall, but the equilibrium quantity might increase, decrease, or remain at the same level.

9 Suppose the government wants to raise money by means of a tax levied on each unit of a good bought and sold. The government wants the incidence of the tax to fall mainly on buyers, not producers. It also wants to disturb the quantity bought and sold as little as possible. Which of the following demand or supply curves best meets these requirements?

1 Highly inelastic supply

2 Highly elastic demand

3 Highly elastic supply

4 Highly inelastic demand

10 If the government were to increase the purchase tax on new automobiles, what would be the effect on the equilibrium price and equilibrium quantity of second hand automobiles?

1 Both increase equilibrium price and equilibrium quantity.

2 Equilibrium price would fall but equilibrium quantity would increase.

3 Equilibrium price would rise but equilibrium quantity might increase, remain the same, or decrease.

4 None, since the second hand market is independent of the new market and the purchase tax applies only to new automobiles.

11 Assume the market for fresh salmon were in equilibrium. If the demand for fresh salmon were suddenly to increase, which of the following would happen in the market period?

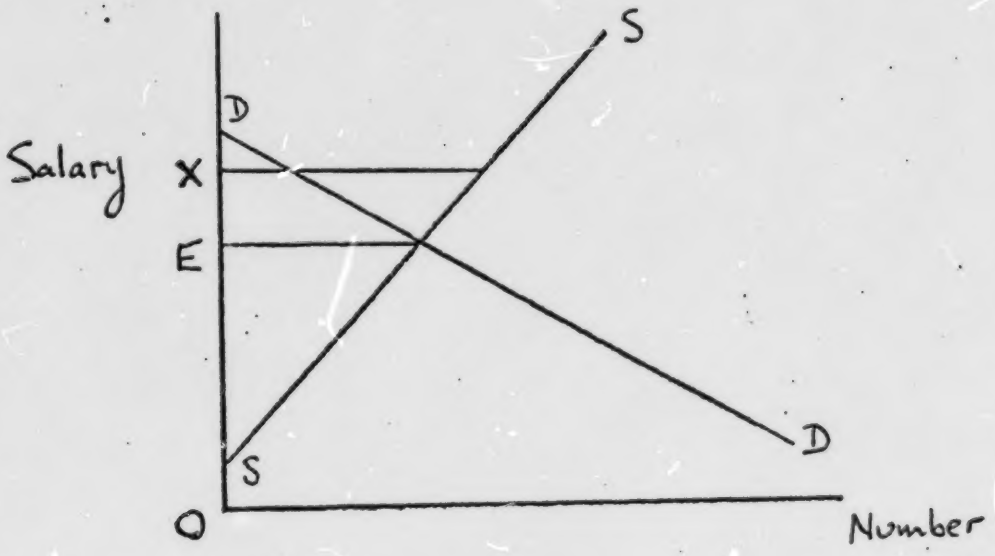
1 No change in either equilibrium price or equilibrium quantity.

2 A rise in equilibrium price and an increase in equilibrium quantity.

3 A rise in equilibrium price and no change in equilibrium quantity.

4 No change in equilibrium price and a decrease in equilibrium quantity.

12 Suppose the diagram below represents the market for biochemists.



If the supply curve relates current salaries to the number of biochemists seeking employment in three years time, and if the current salary level of biochemists is OX, which of the following is correct?

Over a period of time, the salary level of biochemists will

1 converge towards OE.

2 diverge from OE.

3 fluctuate around OE by equal amounts.

4 remain at OX.

Answer Sheet for TIPS Micro Survey 5.1 | 1 - 2

Last name: First name:

Student number: | | | | | | | | 8 - 14

16 - 27

Please circle the number which you think corresponds to the correct answer. Erase completely any answer you wish to change.

Q.1	1	2	3	4
Q.2	1	2	3	4
Q.3	1	2	3	4
Q.4	1	2	3	4
Q.5	1	2	3	4
Q.6	1	2	3	4
Q.7	1	2	3	4
Q.8	1	2	3	4

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1. In long-run purely competitive industry equilibrium, which of the following is true?

A No firms are making either more or less than a "normal" profit.

B No firms wish to either enter or leave the industry.

C Expected price equals minimum long-run average cost.

1 A only.
2 A and B only.
3 A and C only.
4 A, B and C.

2. The main reason that a particularly efficient firm in a purely competitive industry cannot continue indefinitely to make more than normal profits is that:

1 other firms will adjust their behaviour.

2 resources will leave the industry.

3 the extra profits will make the firm lazy and complacent, and it will lose its efficiency.

4 the government will tax away the extra profits.

3. Suppose the furniture industry is perfectly competitive, and has been in long-run equilibrium. Then a rise in consumer demand for furniture takes place. The most likely sequence of events is

1 a quick rise in price which will reduce demand, thereby returning the price to its original level.

2 a quick expansion of output as new firms enter, then a slow rise of price to a higher equilibrium level.

3 a quick rise of price, increased profits, then a slow fall of price as new firms enter.

4 decreased profits, as firms are forced to produce beyond capacity; then the exit of unprofitable level.

4. The term "general equilibrium" for a purely competitive economy implies

1 things are generally stable, though a few changes may be taking place.

2 no economic unit in the entire economy wants to change its behaviour.

3 industries as a whole are in equilibrium, but individual firms are not.

4 consumers in the economy are all well-off.

5. In a purely competitive economy, if some good were being sold for more than its marginal cost, which of the following would be true?

A Consumers would value one more unit at more than the social cost of producing it.

B The allocation of resources would not be optimal.

C Some firm or firms would not be maximizing profit.

1 A only.
2 A and B only.
3 B and C only.
4 A, B and C.

6. Suppose that $\frac{MU_A}{MC_A}$ is greater than $\frac{MU_B}{MC_B}$ in a perfectly competitive economy. Then

1 it would be possible to increase utility by reallocating resources from Industry B to Industry A.

2 it would be possible to increase utility by reallocating resources from Industry A to Industry B.

3 $\frac{MU_A}{P_A}$ must be greater than $\frac{MU_B}{P_A}$.

4 $\frac{MU_B}{P_B}$ must be greater than $\frac{MU_A}{P_A}$.

7. In order to make the most efficient use of a city's resources, how should train and bus fares vary during the day?

1 They should be relatively low during rush hour to reduce cost for the maximum number of people.

2 They should be relatively low during rush hour to transport as many people as possible at that time.

3 They should be relatively high during rush hour to allocate the limited space to the rush-hour travellers who value it most highly.

4 They should be the same at all times to avoid making travelers alter their schedules because of price difference.

8. At going wage rates for military service, a country has been forced to resort to compulsory military service (the draft) to meet manpower requirements. As compared with a system which achieved the required manpower by relying on prices determined in a free market for military service, the draft system results in

1 a lower income for draftees and a higher income for the civilian population.

2 a higher income for draftees and a lower income for the civilian population.

3 a higher income for draftees and the civilian population.

4 a lower income for both draftees and the civilian population.

Answer Sheet for TIPS Micro Survey 6.1

1 – 2
8 – 14
16 – 25

Last name : First name :

Student number :

Please circle the number which you think corresponds to the correct answer. Erase completely any answer you wish to change.

Q.1	1	2	3	4
Q.2	1	2	3	4
Q.3	1	2	3	4
Q.4	1	2	3	4
Q.5	1	2	3	4
Q.6	1	2	3	4
Q.7	1	2	3	4
Q.8	1	2	3	4
Q.9	1	2	3	4

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1. For a monopolist, the best definition of "marginal revenue" is

   1 the highest price he can charge without attracting competition.

   2 the price at which he can sell one more unit.

   3 the change in total revenue if he sells one more unit.

   4 the difference in the price of the last unit sold and the price of the next unit sold.

2 A monopolist would maximise profit by operating at the output where

   1 marginal cost equalled average cost.

   2 marginal cost equalled marginal revenue.

   3 marginal cost equalled price.

   4 average cost equalled price.

3. Of the following, the most consistent difference between a pure competitor and a monopolist is

   1 the monopolist has larger total assets.

   2 marginal revenue and price are the same for the competitor, but different for the monopolist.

   3 the competitor is in a constant cost industry, the monopolist is not.

   4 the monopolist's price is government controlled, the competitor's is not.

4. In the long-run, in a monopolistically competitive industry, high profits on the part of one firm

   1 will lead to high profits for others, as they imitate the successful firm's methods.

   2 will drive other firms out of the industry, and lead to pure monopoly.

   3 will lead to new entry, and tend to drive profits down to normal.

   4 will continue indefinitely, since the profitable firm will erect barriers to entry.

5. An imperfectly competitive firm discovers that at its present level of output average total cost, which is minimal, is £16.50 and average revenue is £18. Marginal revenue is £12. To maximise profit the firm should

1 leave price and output unchanged.

2 increase price and leave output unchanged.

3 increase price and decrease output.

4 decrease price and decrease output.

6. The key economic objection to profit-maximising, unregulated monopoly is that

1 price will not equal average cost.

2 price will be above marginal cost.

3 marginal revenue will be below marginal cost.

4 marginal cost will not equal average cost.

7. In an industry that is monopolised and unregulated, the presumption is that

1 there will be no research.

2 there will be too much advertising.

3 there will be too many resources devoted to production.

4 there will be too few resources devoted to production.

8. Suppose a fully employed economy had only two industries, one monopolistic, the other competitive. Assuming that there are no economies of large scale production, government action to break up the monopoly into many competitive firms would lead to

1 an increase in output for the monopolised industry and a decrease in output for the competitive industry.

2 a decrease in output for the monopolised industry and an increase in output for the competitive industry.

3 an increase in output for both industries.

4 a decrease in output for both industries.

9. Suppose that in an industry composed of many competing firms, all firms are bought by a monopolist who has the power, which he exercises, to prevent any new firms from entering the industry. Assuming demand for the industry's output to be unchanging and assuming that the monopolist operates with the existing plants, the output that will be produced by the new profit-maximising single firm (i.e., the monopolist) will differ from the total output produced by all the competing firms because

1 there are diseconomies of scale which can be more accurately taken into account by the single firm.

2 for the monopolist, the additional revenue from increasing output is less than the price.

3 the effect on cost of increasing output is greater for the competitive firm.

4 the competitive firm will take into account all costs, while the single firm will consider only private costs.

—

Answer Sheet for TIPS Micro Survey 7.1 | 1 — 2

Last name: First name:

Student number: | | | | | | | | 8 — 14

16 — 25

Please circle the number which you think corresponds to the correct answer. Erase completely any answer you wish to change.

Q.1	1	2	3	4
Q.2	1	2	3	4
Q.3	1	2	3	4
Q.4	1	2	3	4
Q.5	1	2	3	4

Q.6	1	2	3	4
Q.7	1	2	3	4
Q.8	1	2	3	4
Q.9	1	2	3	4

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1. "Public goods" are usually not privately produced and sold in the market place because

   A they are so expensive that only the richest buyers could afford them.

   B they can readily be bought by the rich.

   C if they are supplied to one buyer, they are automatically made available to nonbuyers as well.

   1 A only
   2 B only
   3 C only
   4 A, B and C

2. When economists say that pollution is fundamentally due to "externalities" they mean that

   1 people regard pollution as something "external" to them.

   2 individual actions have effects on other persons that are not taken into account by the decision-maker.

   3 pollution is fundamentally an issue that is external to economics.

   4 pollution involves our external environment.

3. If a paper mill pollutes a stream so that it cannot be used for downstream city water without expensive treatment, the effect of the economic distortion involved is most likely to be

   1 unemployment in the paper industry.

   2 a transfer of income from paper users to the owners of the paper mill.

   3 too few resources devoted to paper production.

   4 a transfer of income from city taxpayers to paper users.

4. The main idea behind imposing tax on pollution is

   1 to hurt the polluter where it really counts - in the wallet.

   2 to raise money for government cleanup of the effects of pollution.

   3 to raise money for pollution control research.

   4 to make polluters pay the social costs of their operations.

5. If a special tax were to be imposed on a polluter to "internalize the externality" of his activities, the tax should be

   1 equal to the social cost of his activity.

   2 equal to the private cost of his activity.

   3 equal to private plus social cost of his activity.

   4 equal to the social minus private cost of his activity.

6. As a matter of principle, which of the following is economically the best way of dealing with pollution?

   1 make it illegal.

   2 impose a general income tax to pay for cleanup.

   3 impose a tax on polluters equal to the value of the damage they cause.

   4 impose a tax on polluters high enough to get them to stop it.

7. A firm producing commodity X dumps wastage in the local river causing pollution and killing all salmon and trout. Does the pattern of river utilization constitute an economical use of resources?

   1 No, because rivers should be preserved for fishing.

   2 No, because the firm does not take into account all the costs of using the river for dumping of waste.

   3 Yes, if more consumers buy X than buy fish.

   4 Yes, if X can be produced more cheaply by using the river to dispose of the firm's waste.

8. Suppose all consumers voting independently and honestly, indicated that they would be willing to pay the same amount for public good Y. If each consumer contributed this amount, all of which was devoted to producing this good, then, in terms of economic efficiency

1 too much of Y would be produced.

2 too little of Y would be produced.

3 just the right amount of Y would be produced.

4 without more information you cannot tell which of the above is correct.

9. If we in the U.K. really want a clean environment then

1 our only chance is to increase the social wareness of our citizens.

2 we will have to pay for it in less of other things.

3 we will have to abandon our predominantly free enterprise system.

4 each of us individually has to discipline himself not to be a polluter.

Answer Sheet for TIPS Micro Survey 8.1	1 — 2
Last name: First name:	
Student number:	8 — 14
Please circle the number which you think corresponds to the correct answer. Erase completely any answer you wish to change.	16 — 24

Q.1	1	2	3	4
Q.2	1	2	3	4
Q.3	1	2	3	4
Q.4	1	2	3	4

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1. In general, if for some reason the wage rate is above the marginal revenue product of labour in a given industry, which of the following adjustments would you expect to occur?

A the wage rate would fall.

B some workers would be laid off.

1 A only
2 B only
3 either A or B or both
4 neither A nor B

2. One sense in which a monopolist "exploits" workers is by

1 paying a wage below subsistence level.

2 not paying out all profits to workers.

3 paying a wage below the value of labour's marginal product.

4 maintaining unpleasant working conditions.

3. The immense difference in rates of pay between corporation presidents and unskilled manual labourers

1 are unexplained exceptions to the marginal productivity theory of wages.

2 exists because of politics and power, not economic rationality.

3 would be largely eliminated in a truly competitive, free enterprise economy.

4 are basically the result of influences of supply and demand.

4. In the U.S. in the 1930's John L Lewis successfully negotiated wage increases for coal miners. His union, it is alleged, made wage-rates approximately 100% higher than they would have been in the absence of the union. One cost associated with his efforts was a dramatic decrease in the number of employed coal miners. If total wage income increased, however, because of the union efforts, which of the following would be true.

A Employers were no longer paying employed coal miners value of their marginal product.

B The employed coal miners could have compensated those laid off and each would have been better off.

1 A only
2 B only
3 both A and B
4 neither A nor B

Answer Sheet for TIPS Micro Survey 9.1 | 1 — 2

Last name: First name:

Student number: | | | | | | | | 8 — 14

16 — 25

Please circle the number which you think corresponds to the correct answer. Erase completely any answer you wish to change.

Q.1	1	2	3	4
Q.2	1	2	3	4
Q.3	1	2	3	4
Q.4	1	2	3	4
Q.5	1	2	3	4

Q.6	1	2	3	4
Q.7	1	2	3	4
Q.8	1	2	3	4
Q.9	1	2	3	4

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1 Two countries, X and Y, can produce only wheat and cloth according to the following schedule:

Commodity	Marginal Costs of Production	
	Country X	Country Y
a unit of wheat	1 man-day	2 man-days
a unit of cloth	3 man-days	4 man-days

Assuming no other production costs, transportation costs, or trading restrictions, which of the following is true?

1. Country X will export wheat and import cloth.
2. Country X will export both wheat and cloth.
3. Country X will neither import nor export wheat or cloth.
4. The pattern of trade cannot be determined from the above information.

2 Which of the following would make possible higher living standards throughout the world?

A. an increase in the skills of the labour force in each country

B. an increase in the stock of capital goods in each country

C. an increase in protective tariffs in each country

1. A only
2. A and B only
3. A and C only
4. A, B, and C

3 Suppose that diplomatic initiatives by the United States led to the opening of extensive trade with the Soviet Union. Which of the following best describes the effects this would have on the United States?

1. Incomes in export industries would rise, but not by as much as incomes in import-competing industries would fall.
2. Incomes in import-competing industries might fall, but not by as much as incomes in export industries would rise.
3. Per capita income would rise as long as incomes in both export- and import-competing industries would rise.
4. Incomes in both export- and import-competing industries could either rise or all.

4 Which, if any, of the following would result if all restrictions to trade were removed?

A. higher average living standards

B. lower living standards for some persons

1. A only
2. B only
3. Both A and B
4. Neither A nor B

5 "In Soviet-type economies most land and capital goods are owned by the government and most production takes place in government enterprises. Since there are no payments of rent or interest, prices of commodities are set to cover the average labour costs of previous years. As a result, prices are lower than they would be if the economy were of the free enterprise type."

Which, if any, of the following can be deducted from the above statement?

A. Free enterprise economies are more efficient because a higher price level reflects a higher value of output.

B. In Soviet-type economies goods requiring a lot of labour and little capital appear relatively more costly to consumers than they really are.

1. A only
2. B only
3. Both A and B
4. Neither A nor B

6 In the Soviet Union there has been a move in the direction of allocating new capital goods among industries according to profitability. In order for this to be a rational allocation procedure, what must be true about commodity prices in the Soviet Union?

1. Prices must equal average costs of production.

2. Prices must remain stable.

3. Prices must reflect relative scarcities.

4. All of the above.

7 In the Soviet Union skilled workers receive higher wages than unskilled workers.

This fact

1. suggests each worker is paid according to his needs.

2. is consistent with Soviet planners paying some attention to market forces.

3. is proof that there are more unskilled than skilled workers in the USSR.

4. is proof that more skilled workers than unskilled workers are demanded in the USSR.

8 "The possible gains from trade are greatly exaggerated. If a country's exports and imports are equal it means that it is exchanging with the rest of the world goods of equal market value. A country can only gain if it imports more than it exports and, for the world as a whole, imports and exports must be equal."

This statement is incorrect because

1. it is possible that traders would be willing to give up more than they have to for what they get.

2. an economy can gain from trade only if export earnings exceed payments for imports.

3. equality of imports and exports does not necessarily imply exchange of goods of equal market value.

4. imports add to and exports subtract from the amount of usable output available to an economy.

9 If, because of continued UK balance of payments surpluses, it were decided to revalue the pound sterling upwards and if no other country made any changes, what would be the effect on UK residents?

A. A vacation in Europe would cost less.

B. Imported goods would become cheaper.

1. A only.
2. B only.
3. Both A and B.
4. Neither A nor B.

Answer Sheet for TIPS Micro Survey 10.1 (Review)

1 –

Last name: First name:

Student number: | | | | | | | |

8 –

16 –

Please fill in the circle which you think corresponds to the correct answer. Erase completely any answer you wish to change.

	1	2	3	4
1	0	0	0	0

	1	2	3	4
2	0	0	0	0

	1	2	3	4
3	0	0	0	0

	1	2	3	4
4	0	0	0	0

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

1 The following data refer to a tomato farmer who hires tomato pickers at £1.20 per day

Number of pickers	Tomato output
1	£ 3.00
2	4.80
3	6.20
4	7.20
5	8.00
6	8.70
7	9.30
8	9.60
9	9.80
10	9.80

The profit maximising farmer should hire only

1 one tomato picker because his contribution to output is greatest.

2 three tomato pickers because the fourth costs more than he earns.

3 eight tomato pickers because costs will equal revenue.

4 nine tomato pickers because the value of the marginal product of the tenth picker is zero.

2 The local authorities, in an attempt to make the tomato pickers better off, legislate that tomato pickers must be paid a wage no less than £1.60 per day. If our profit-maximising farmer from question 1 complies, which of the following will be correct?

A Each of the tomato pickers our farmers had previously hired will become better off.

B The value of the average product of labour will fall.

C The quantity of tomato output will fall.

1 A only
2 B and C only
3 C only
4 A, B and C

3 What is meant by the assertion that every economic system, be it communist, socialist or capitalist, faces the fundamental fact of scarcity?

1 As a country starts to develop many commodities that were scarce become more plentiful, and people become better off on average.

2 When jobs are unavailable many low-skilled and poorly paid workers become poverty stricken.

3 Insufficient resources exist to satisfy all the wants in any given society.

4 The opportunity cost of labour in developed nations is greater than the opportunity cost of labour in Third World countries.

4 If two individuals were to voluntarily trade with each other, each would become better off for which of the following reasons?

A Total output would be greater.

B Total utility would be greater.

C Costs of production would be lower.

1 A only
2 B only
3 C only
4 A, B and C

Continuous Student Evaluation Questionnaire

Traditionally in institutions of higher education little attention has been paid either to student opinion of the course and instructors, or to what students think they have learned. Final examination marks tend to be the only measuring rod of course output. It is possible that the subjective opinions of students and instructors, especially where non-traditional teaching methods have been used, are not only valid measures of course output but may be the critical factor in determining the optimal type of course for students, instructors and institutions.

Because of the potential of such information your careful and considered answers to the questions below are extremely important.

Continuous Student Evaluation Questionnaire

Surname: Forename:

	LOW				HIGH
What is your opinion of the overall value of this course, taking into account your enjoyment of the teaching methods and the amount which you feel you have learned so far? Circle the appropriate number on the scale.	1	2	3	4	5

On the scale below, circle the number which you feel accurately reflects your enjoyment with the different methods of teaching to which you have been exposed during this course.

	LOW				HIGH
Lectures	1	2	3	4	5
Textbook	1	2	3	4	5
Programmed Text	1	2	3	4	5
Readings	1	2	3	4	5
TIPS	1	2	3	4	5
Tutorials	1	2	3	4	5

Continuous Student Evaluation Questionnaire (2)

At the beginning of this course you were provided with a detailed course outline which set out the main topics to be covered in the course. Up to this time you have covered the following topics:

1. ECONOMIC CONCEPTS, ISSUES AND TOOLS
2. DEMAND
3. SUPPLY
4. PRICE AND OUTPUT DETERMINATION IN MARKETS
5. MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY

Allocate 100 points among the teaching methods listed below to reflect the contribution you consider they have made to your understanding of these topics.

Lectures	Text-book	Prog. Text	Readings	TIPS	Tutorials	None of These	TOTAL
							100

You have now been studying economics for six weeks. The following questions refer to the use which you have made of each teaching method.

Lectures:	How many of the sixteen lectures have you attended?	____
Textbook:	How many of the ten recommended chapters have you read?	____
Programmed Text:	How many of the nine recommended chapters have you read?	____
Readings:	How many of the three recommended readings have you read?	____
TIPS:	How many of the five TIPS Surveys have you completed?	____
Tutorials:	How many of the five tutorials have you attended?	____

End of Quarter Student Evaluation Questionnaire

Name:

How would you compare the amount of time spent on this course with the amount of time spent on other courses you took this quarter? Circle the appropriate number.

LOW				HIGH
1	2	3	4	5

If your answer to the above question was low (i.e. 1 or 2), please give the reason(s). Tick the appropriate box(es).

- High volume of written work in other courses ☐
- High volume of reading work in other courses ☐
- Economics is not my major subject ☐
- I find the course uninteresting ☐
- Other (specify)..... ☐

If your answer to the above question was high (i.e. 4 or 5), please give the reason(s). Tick the appropriate box(es).

- High volume of written work in tutorials in the course (e.g. essays, cases, etc.) ☐
- High volume of reading work in the course ☐
- Economics is my major subject ☐
- I find the course interesting ☐
- Other (specify)..... ☐

On the scale below, circle the number which reflects your enjoyment with the teaching methods used this quarter.

	LOW				HIGH
Lectures	1	2	3	4	5
Textbook	1	2	3	4	5
Programmed Text	1	2	3	4	5
Readings	1	2	3	4	5
TIPS	1	2	3	4	5
Tutorials	1	2	3	4	5

End of Quarter Student Evaluation Questionnaire (2)

Circle the number which reflects your opinion of economics in relation to the characteristics listed.

		LOW				HIGH
Economics is:	relevant to real life	1	2	3	4	5
	interesting	1	2	3	4	5
	intellectually demanding	1	2	3	4	5

Allocate 100 points among the teaching methods to reflect the contribution each has made to your understanding of this course.

Lectures	Text-book	Prog. Text	Readings	TIPS	Tutorials	None of These	TOTAL
							100

If the final examination this term were to reflect microeconomics comprehension accurately, in which of the following categories of marks would you appear? Circle the number which applies.

<20	21-30	31-40	41-50	51-60	61-70	71-80	>80
1	2	3	4	5	6	7	8

Knowing now what you do about this course, would you have taken this course if it were not required? Tick the appropriate box.

Yes ☐

No ☐

End of Quarter Student Evaluation Questionnaire (3)

Each of the teaching methods used in this course has a number of characteristics which contribute to learning. Allocate 100 points among the characteristics for each method to reflect the extent to which each characteristic has contributed to your learning.

Method	Feedback	Gearing to individual needs	Applicability to real life	Other	TOTAL
Lectures					100
Textbook					100
Programmed Text					100
Readings					100
TIPS					100
Tutorials					100

Students vary in their learning needs, some of which are listed below. Allocate 100 points among the teaching methods to reflect the extent to which each met your learning needs.

TECHNIQUE	Identifying areas of weakness	Clarifying concepts	Connecting different concepts	Applying concepts to real life problems	Analysing complex situations	Evaluating economic policy decisions	TOTAL
Lectures							100
Textbook							100
Programmed Text							100
Readings							100
TIPS							100
Tutorials			147				100

End of Quarter Student Evaluation Questionnaire (4)

On the scale below circle the number which reflects your overall rating of:	LOW				HIGH
Your professor.....	1	2	3	4	5
Your tutor.....	1	2	3	4	5

Circle the number (or x) which reflects your opinion of the different characteristics of your lecturer and tutor during this course:

	Professor						Tutor					
	NO OPINION	LOW				HIGH	NO OPINION	LOW				HIGH
Imparts enthusiasm.....	x	1	2	3	4	5	x	1	2	3	4	5
Knows subject matter well.	x	1	2	3	4	5	x	1	2	3	4	5
Is well prepared for class	x	1	2	3	4	5	x	1	2	3	4	5
Demonstrates practical applications of course material.....	x	1	2	3	4	5	x	1	2	3	4	5
Presents material with clarity.....	x	1	2	3	4	5	x	1	2	3	4	5
Speaks clearly and distinctly.....	x	1	2	3	4	5	x	1	2	3	4	5
Uses the blackboard effectively.....	x	1	2	3	4	5	x	1	2	3	4	5
Is available outside class.....	x	1	2	3	4	5	x	1	2	3	4	5
Is sensitive to students' level of understanding and is responsive to students' questions.....	x	1	2	3	4	5	x	1	2	3	4	5
Has respect for students' opinions.....	x	1	2	3	4	5	x	1	2	3	4	5
Provides helpful comments on assignments.....	x	1	2	3	4	5	x	1	2	3	4	5

Which two aspects of the course and/or professor and/or tutor did you like:

(a) best: _____

(b) least: _____

Instructor Questionnaire

The purpose of this questionnaire is twofold; (1) to collect data on instructor characteristics which may affect student economics comprehension at the end of the course and/or student attitude towards the subject, and (2), to collect instructor opinion of different teaching techniques and plans for adoption and implementation. Please include a curriculum vitae listing publications and current research.

1. College or University: _____

2. Surname: _____ Initials: _____

3. Rank:
   Professor..... _____
   Associate Professor..... _____
   Assistant Professor..... _____
   Instructor..... _____
   Other (specify). _____
   _____

4. Degree, Institution, and year of award:
   e.g., B.A, Fresno State University, 1958
   M.A, Harvard University, 1960
   Ph.D, University of California at San Diego, 1968

   _____

   _____

5. Teaching Experience:

Institution	Dates	Courses

6. Number of Quarters/Semesters in which you previously have taught this course..... _____

7. In how many sections are you teaching this course currently?..... _____

8. For how many hours per week, on average, are you involved in official university activities?..... _____
   e.g., teaching, administration, research, etc.

9. How is your time allocated during the current academic year (excluding summer)?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

10. How was your time allocated during the last academic year?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

11. How will your time be allocated during the coming summer?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

12. How was your time allocated during the last summer?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

Course Information

1. How many office hours, if any, do you hold for this course? _____

2. What percentage of students in this course come to these office hours?..... _____

3. During 'lecture' hours, what percentage of your time is spent:
   (a) in lecturing?..... _____
   (b) in class discussion?..... _____

4. During 'tutorial' hour(s), what percentage of time is spent
   (a) in lecturing?..... _____
   (b) in discussion?..... _____
   (c) other? Specify _____

5. Allocate 100 points among the teaching methods to reflect the contribution you believe each has made on average to the economics comprehension of students in this course.

Lectures	Text-book	Prog. Text	Readings	TIPS	Tutorials	None of These	TOTAL
							100

Instructor Questionnaire (3)

6. Consult the Course Management Plan and indicate, by week, how many hours you expect students to study for this course, excluding lectures and tutorials.

Wk.	1	2	3	4	5	6	7	8	9	10	..	..	..	..	..	..	..
Hrs.																	

7. Students will complete the faculty evaluation form below. We intend to run regressions in which overall rating of the instructor will be the dependent variable and in which the listed attributes will be the independent variables. The regression coefficients can be thought of as the weights students attach to instructor attributes.

First, what weights would you assign to each of the instructor attributes listed? (Allocate 100 points). Second, what weights do you think your students will assign to each of the instructor attributes? (Allocate 100 points). Third, what important instructor attributes, if any, do you think have been omitted from the list? Fourth, how much of the variance in overall ratings do you think will be explained by the instructor attributes listed? (i.e, estimate the R^2).

Attributes	7.1 Your Weights (Σ = 100)	7.2 Expected Student Weights (Σ = 100)
Imparts enthusiasm.....		
Knows subject matter well.....		
Is well prepared for class.....		
Demonstrates practical applications of course material.....		
Presents material with clarity.....		
Speaks clearly and distinctly.....		
Uses blackboard effectively.....		
Is available outside class.....		
Is sensitive to students' level of understanding and is responsive to students' questions.....		
Has respect for students' opinions.....		
Provides helpful comments on assignments.....		
Totals:	100	100

7.3 Important instructor attributes missing from the list above:_____

_____

7.4 Anticipated percentage of variance explained (i.e., estimated R^2)___.

Instructor Questionnaire (4)

New Techniques

In comparing this course with a traditional lecture course, we require data on costs and benefits, some of which at this stage, will be subjective.

1. Do you think this course is an improvement on the traditional lecture course?..... Yes/No

   Why?_____

   _____

2. What has been the reaction of students to the course? _____

   _____

3. Which, if any, of the new techniques do you plan to adopt?_____

   Justify:_____

   _____

3.1 In what way do you intend to modify any of the new techniques you are planning to adopt? Explain....._____

   _____

3.2 What, if any, are the resource reallocation implications for your department? Explain... _____

   _____

3.3 Do you anticipate any of your colleagues in the economics department altering their teaching practices in the light of this experiment?..... Yes/No

   Explain:_____

   _____

3.4 Do you anticipate any instructors in other departments altering their teaching practices in the light of this experiment?..... Yes/No

   Explain:_____

   _____

Instructor Questionnaire (5)

When the data in this experiment have been analysed we shall be holding a conference for all participating institutions. Prior to the meeting we shall require additional information on both the experiment and plans for reorgansiation of the Economics 1 course and concomittant costs.

However, at this time any comments you have on the techniques or the experiment would be appreciated.

MICRO CORE COURSE

2.4. CASES-TIPS COURSE PACKAGE

2.4.1 Micro Units

1 Economics Concepts, Issues, and Tools
2 Demand
3 Supply
4 Price and Output Determination in Markets
5 Marginal Equivalency Conditions and Economic Efficiency
6 The Organisation of Industries
7 Public Goods and Externalities
8 Income Distribution
9 International Trade
10 Concepts Revisited

2.4.2 Lectures

25 x 50 Minute Lectures

2.4.3 Texts

Economics (Samuelson); Microeconomics (Lumsden, Attiyeh, Bach)

2.4.4 Readings

1 The Economic Organisation of a Prisoner of War Camp, R A Radford
2 One Dutch man hour = Two British man hours, William Rees-Mogg, The Times, 28.9.77
3 The Dynamics of 'Shortage' of Engineers and Scientists, K Arrow and W Capron
4 The Economic Common Sense of Pollution, Larry E Ruff
5 A Fable of Trade and Technology, J C Ingram

2.4.5 Assignments

1 Mathematics Survey
2 5 TIPS Surveys
3 5 Case Studies
4 Mid Term Examination (50 Minutes - Objective)
5 Mid Term Examination (50 Minutes - Essays)
6 Final Examination (3 Hours - Objective + Cases + Essays)

2.4.6 Remedial Tutorials

1 1 Mathematics Tutorial
2 10 Tutorials

2.4.7 Research Requirements

1 Student Information Questionnaire
2 Pre-Test in Economics
3 Psychological Inventory
4 Continuous Student Evaluation Questionnaire
5 End of Quarter Student Evaluation Questionnaire
6 Instructor Questionnaire

	Lecture 1	Lecture 2	Lecture 3
LECTURE CONTENT	Introduction and Overview Description of TIPS Description of Cases MICRO UNIT 1: ECONOMIC CONCEPTS ISSUES, AND TOOLS 1.1 Scarcity and Choice 1.2 Preferences, Resources, Exchange and Economic Efficiency	1.3 Marginal Analysis and Opportunity Cost 1.4 Different Economic Systems	MICRO UNIT 2: DEMAND 2.1 The Concept of Demand 2.2 Influences on Demand 2.3 Assumptions in the Theory of Demand
TEXTS	Lumsden, Attiyeh, Bach: Microeconomics, Ch 1, 2 Samuelson: Economics, Ch 1,2,3	Microeconomics, Ch 2 Economics, Ch 43	Microeconomics, Ch 3 Economics, Ch 22
READING			
ASSIGNMENTS	Student Information Questionnaire Psychological Inventory Pre-Test in Economics Basic Mathematical Survey	Case 1.1. Marginal Analysis and Noise Pollution	
TUTORIAL		Remedial Mathematics Tutorial	Case Analysis 1.1, Marginal Analysis and Noise Pollution

	Lecture 4	Lecture 5	Lecture 6
LECTURE CONTENT	MICRO UNIT 2: DEMAND (cont'd) 2.4 Implications of the Assumptions 2.5 Individual Demand	2.6 Market Demand 2.7 Characteristics of Demand	MICRO UNIT 3: SUPPLY 3.1 The Concept of Supply 3.2 Influences on Supply
TEXTS	Microeconomics, Ch 3 Economics, Ch 22	Microeconomics, Ch 4 Economics, Ch 22	Microeconomics, Ch 5 Economics, Ch 23, 27
READING	The Economic Organisation of a Prisoner of War Camp, R A Radford		
ASSIGNMENTS		TIPS Survey, 1.1, 2.1	
TUTORIAL			Micro Unit 1, 1.1 - 1.4 Micro Unit 2, 2.1 - 2.7 (Additional TIPS Questions)

	Lecture 7	Lecture 8	Lecture 9
	MICRO UNIT 3: SUPPLY (cont'd) 3.3 Assumptions in the Theory of Supply 3.4 Implications of the Assumptions	3.4 Implications of the Assumptions (cont'd)	3.5 Firm Supply in the Short Run
TEXTS	Microeconomics, Ch 6 Economics, Ch 23, 27	Microeconomics, Ch 6 Economics, Ch 23, 27	Microeconomics, Ch 5, 6 Economics, Ch 23, 27
READING	One Dutch man hour = two British man hours, William Rees-Mogg, The Times, 28.9.77		
ASSIGNMENTS		Case 3.1. Production Decisions for the Jewellery Manufacturer	
TUTORIAL			Case Analysis 3.1. Production Decisions for the Jewellery Manufacturer

	Lecture 10	Lecture 11	Lecture 12
LECTURE CONTENT	MICRO UNIT 3: SUPPLY (cont'd) 3.5 Firm Supply in the Short Run (cont'd) 3.6 Industry Supply in the Short Run	3.7 Firm Supply in the Long Run 3.8 Industry Supply in the Long Run 3.9 Characteristics of Supply	MICRO UNIT 4: PRICE AND OUTPUT DETERMINATION IN MARKETS 4.1 The Concept of a Market 4.2 Market Supply and Demand
TEXTS	Microeconomics, Ch 6 Economics, Ch 23	Microeconomics, Ch 7 Economics, Ch 24	Microeconomics, Ch 8 Economics, Ch 24
READING			
ASSIGNMENTS		TIPS Survey, 3.1, 3.2 Mid Term Examination (Objective)	
TUTORIAL			Micro Unit 3, 3.1 - 3.4 Micro Unit 3, 3.4 - 3.9

	Lecture 13	Lecture 14	Lecture 15
LECTURE CONTENT	MICRO UNIT 4: PRICE AND OUTPUT DETERMINATION IN MARKETS (cont'd) 4.3 The Operation of Markets 4.4 Changes in Market Equilibrium	4.5 Intervention in the Market 4.6 Dynamic Adjustments in the Market	MICRO UNIT 5: MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY 5.1 The Marginal Equivalency Conditions 5.2 Resource Allocation and Profit Maximising Behaviour in the Short Run
TEXTS	Microeconomics, Ch 8 Economics, Ch 4, 20	Microeconomics, Ch 8 Economics, Ch 4, 20	Microeconomics, Ch 8 Economics, Ch 4, 20
READING		The Dynamics of 'Shortage' of Engineers and Scientists, K Arrow and W Capron	
ASSIGNMENTS		Case 4.1 Housing in South California	
TUTORIAL			Case Analysis 4.1, Housing in South California

16

	Lecture 16	Lecture 17	Lecture 18
LECTURE CONTENT	MICRO UNIT 5: MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY (cont'd) 5.3 Resource Allocation and Profit Maximising Behaviour in the Long Run 5.4 The Wonderful World of Adam Smith vs. The Real World	MICRO UNIT 6: THE ORGANISATION OF INDUSTRIES 6.1 Characteristics of Firms 6.2 Perfect Competition	6.3 Monopoly and Economies of Scale 6.4 Imperfect Competition 6.5 Regulation and Economic Efficiency
TEXTS	Microeconomics, Ch 9 Economics, Ch 23, 24	Microeconomics, Ch 11 Economics, Ch 25	Microeconomics, Ch 11 Economics, Ch 25, 26
READING			
ASSIGNMENTS	Continuous Student Evaluation Questionnaire Mid Term Examination (Essays)	TIPS Survey, 4.1, 5.1	
TUTORIAL			Micro Unit 4, 4.1 - 4.6 Micro Unit 5, 5.1 - 5.4

	Lecture 19	Lecture 20	Lecture 21
LECTURE CONTENT	MICRO UNIT 7: PUBLIC GOODS AND EXTERNALITIES 7.1 Public Goods vs. Private Goods 7.2 Public Goods, Collective Action, and Economic Efficiency	7.3 Externalities: Positive and Negative 7.4 Externalities, Collective Action, and Economic Efficiency	MICRO UNIT 8: INCOME DISTRIBUTION 8.1 Marginal Productivity 8.2 Economic Rent
TEXTS	Microeconomics, Ch 10 Economics, Ch 8, 26	Microeconomics, Ch 10 Economics, Ch 8, 26	Microeconomics, Ch 12 Economics, Ch 27, 28
READING		The Economic Common Sense of Pollution, Larry E Ruff	
ASSIGNMENTS		Case 7.1 Pollution and the Metal Casting Industry	
TUTORIAL			Case Analysis 7.1 Pollution and the Metal Casting Industry

	Lecture 22	Lecture 23	Lecture 24
	MICRO UNIT 8: INCOME DISTRIBUTION (cont'd) 8.3 Monopsony 8.4 Trade Unions 8.5 Income Distribution, Collective Action, and Economic Equity	MICRO UNIT 9: INTERNATIONAL TRADE 9.1 Gains from Exchange 9.2 Theory of Comparative Advantage 9.3 Tariffs and Quotas 9.4 Exchange Rates	MICRO UNIT 10: CONCEPTS REVISITED 10.1 Consumer Rationality 10.2 Marginal Cost Pricing 10.3 Income, Wealth and Power Distribution
TEXTS	Microeconomics, Ch 12 Economics, Ch 29, 30	Microeconomics, Ch 9 Economics, Ch 34, 35	Economics, Ch 31, 32
READING		A Fable of Trade and Technology J C Ingram	
ASSIGNMENTS		TIPS Survey, 6.1, 7.1, 8.1, 9.1	
TUTORIAL			Micro Unit 6, 6.1 - 6.5 Micro Unit 7, 7.1 - 7.5 Micro Unit 8, 8.1 - 8.5 Micro Unit 9, 9.1 - 9.4

Lecture 25

LECTURE CONTENT	MICRO UNIT 10: CONCEPTS REVISITED (cont'd) 10.4 Competition vs. Co-operation: Capitalism vs. Maoism 10.5 Legitimate Role of Government: Friedman vs. Galbraith
TEXTS	Economics, Ch 31, 32
READING	
ASSIGNMENTS	TIPS Survey, 10.1 (Review) End of Quarter Student Evaluation Questionnaire Final Examination
TUTORIALS	Micro Unit 10, 10.1 - 10.5 and Review The Economics of Minimum Wages, and Income Distribution (Discussion Case)

Continuous Student Evaluation Questionnaire

Traditionally in institutions of higher education little attention has been paid either to student opinion of the course and instructors, or to what students think they have learned. Final examination marks tend to be the only measuring rod of course output. It is possible that the subjective opinions of students and instructors, especially where non-traditional teaching methods have been used, are not only valid measures of course output but may be the critical factor in determining the optimal type of course for students, instructors and institutions.

Because of the potential of such information your careful and considered answers to the questions below are extremely important.

Continuous Student Evaluation Questionnaire

Surname: Forename:

What is your opinion of the overall value of this course, taking into account your enjoyment of the teaching methods and the amount which you feel you have learned so far? Circle the appropriate number on the scale.

LOW				HIGH
1	2	3	4	5

On the scale below, circle the number which you feel accurately reflects your enjoyment with the different methods of teaching to which you have been exposed during this course.

	LOW				HIGH
Lectures	1	2	3	4	5
Textbook	1	2	3	4	5
Programmed Text	1	2	3	4	5
Readings	1	2	3	4	5
TIPS	1	2	3	4	5
Cases	1	2	3	4	5
Tutorials	1	2	3	4	5

Continuous Student Evaluation Questionnaire (2)

At the beginning of this course you were provided with a detailed course outline which set out the main topics to be covered in the course. Up to this time you have covered the following topics.

1. ECONOMIC CONCEPTS, ISSUES AND TOOLS
2. DEMAND
3. SUPPLY
4. PRICE AND OUTPUT DETERMINATION IN MARKETS
5. MARGINAL EQUIVALENCY CONDITIONS AND ECONOMIC EFFICIENCY

Allocate 100 points among the teaching methods listed below to reflect the contribution you consider they have made to your understanding of these topics.

Lectures	Text-book	Prog. Text	Read-ings	TIPS	Cases	Tutorials	None of These	TOTAL
								100

You have now been studying economics for six weeks. The following questions refer to the use which you have made of each teaching method.

Lectures:	How many of the sixteen lectures have you attended?	_____
Textbook:	How many of the ten recommended chapters have you read?	_____
Programmed Text:	How many of the nine recommended chapters have you read?	_____
Readings:	How many of the three recommended readings have you read?	_____
TIPS:	How many of the two TIPS surveys have you completed?	_____
Cases:	How many of the three cases have you completed?	_____
Tutorials:	How many of the five tutorials have you attended?	_____

End of Quarter Student Evaluation Questionnaire

Name:

How would you compare the amount of time spent on this course with the amount of time spent on other courses you took this quarter? Circle the appropriate number.

LOW				HIGH
1	2	3	4	5

If your answer to the above question was low (i.e. 1 or 2), please give the reason(s). Tick the appropriate box(es).

- ☐ High volume of written work in other courses
- ☐ High volume of reading work in other courses
- ☐ Economics is not my major subject
- ☐ I find the course uninteresting
- ☐ Other (specify).....

If your answer to the above question was high (i.e. 4 or 5), please give the reason(s). Tick the appropriate box(es).

- ☐ High volume of written work in tutorials in the course (e.g. essays, cases, etc.)
- ☐ High volume of reading work in the course
- ☐ Economics is my major subject
- ☐ I find the course interesting
- ☐ Other (specify).....

On the scale below, circle the number which reflects your enjoyment with the teaching methods used this quarter.

	LOW				HIGH
Lectures	1	2	3	4	5
Textbook	1	2	3	4	5
Programmed Text	1	2	3	4	5
Readings	1	2	3	4	5
TIPS	1	2	3	4	5
Cases	1	2	3	4	5
Tutorials	1	2	3	4	5

End of Quarter Student Evaluation Questionnaire (2)

Circle the number which reflects your opinion of economics in relation to the characteristics listed.

		LOW				HIGH
Economics is:	relevant to real life	1	2	3	4	5
	interesting	1	2	3	4	5
	intellectually demanding	1	2	3	4	5

Allocate 100 points among the teaching methods to reflect the contribution each has made to your understanding of this course.

Lectures	Text-book	Prog. Text	Read-ings	TIPS	Cases	Tutorials	None of These	TOTAL
								100

If the final examination this term were to reflect microeconomics comprehension accurately, in which of the following categories of marks would you appear? Circle the number which applies.

<20	21-30	31-40	41-50	51-60	61-70	71-80	>80
1	2	3	4	5	6	7	8

Knowing now what you do about this course, would you have taken this course if it were not required? Tick the appropriate box.

Yes ☐

No ☐

End of Quarter Student Evaluation Questionnaire (3)

Each of the teaching methods used in this course has a number of characteristics which contribute to learning. Allocate 100 points among the characteristics for each method to reflect the extent to which each characteristic has contributed to your learning.

Method	Feedback	Gearing to individual needs	Applicability to real life	Other	TOTAL
Lectures					100
Textbook					100
Programmed Text					100
Readings					100
TIPS					100
Cases					100
Tutorials					100

Students vary in their learning needs, some of which are listed below. Allocate 100 points among the teaching methods to reflect the extent to which each met your learning needs.

TECHNIQUE	Identifying areas of weakness	Clarifying concepts	Connecting different concepts	Applying concepts to real life problems	Analysing complex situations	Evaluating economic policy decisions	TOTAL
Lectures							100
Textbook							100
Programmed Text							100
Readings							100
TIPS							100
Cases							100
Tutorials							100

End of Quarter Student Evaluation Questionnaire (4)

On the scale below circle the number which reflects your overall rating of:	LOW				HIGH
Your professor.....	1	2	3	4	5
Your tutor.....	1	2	3	4	5

Circle the number (or x) which reflects your opinion of the different characteristics of your lecturer and tutor during this course:

	Professor						Tutor					
	NO OPINION	LOW				HIGH	NO OPINION	LOW				HIGH
Imparts enthusiasm.....	x	1	2	3	4	5	x	1	2	3	4	5
Knows subject matter well.	x	1	2	3	4	5	x	1	2	3	4	5
Is well prepared for class	x	1	2	3	4	5	x	1	2	3	4	5
Demonstrates practical applications of course material.....	x	1	2	3	4	5	x	1	2	3	4	5
Presents material with clarity.....	x	1	2	3	4	5	x	1	2	3	4	5
Speaks clearly and distinctly.....	x	1	2	3	4	5	x	1	2	3	4	5
Uses the blackboard effectively.....	x	1	2	3	4	5	x	1	2	3	4	5
Is available outside class.....	x	1	2	3	4	5	x	1	2	3	4	5
Is sensitive to students' level of understanding and is responsive to students' questions.....	x	1	2	3	4	5	x	1	2	3	4	5
Has respect for students' opinions.....	x	1	2	3	4	5	x	1	2	3	4	5
Provides helpful comments on assignments.....	x	1	2	3	4	5	x	1	2	3	4	5

Which two aspects of the course and/or professor and/or tutor did you like:

(a) best: _____

(b) least: _____

Instructor Questionnaire

The purpose of this questionnaire is twofold; (1) to collect data on instructor characteristics which may affect student economics comprehension at the end of the course and/or student attitude towards the subject, and (2), to collect instructor opinion of different teaching techniques and plans for adoption and implementation. Please include a curriculum vitae listing publications and current research.

1. College or University: _____

2. Surname: _____ Initials: _____

3. Rank:

Professor..... _____

Associate Professor..... _____

Assistant Professor..... _____

Instructor..... _____

Other (specify). _____

_____

4. Degree, Institution, and year of award:
e.g., B.A, Fresno State University, 1958
M.A, Harvard University, 1960
Ph.D, University of California at San Diego, 1968

_____

_____

5. Teaching Experience:

Institution	Dates	Courses

6. Number of Quarters/Semesters in which you previously have taught this course..... _____

7. In how many sections are you teaching this course currently?..... _____

8. For how many hours per week, on average, are you involved in official university activities?..... _____
e.g., teaching, administration, research, etc.

Instructor Questionnaire (2) . .

9. How is your time allocated during the current academic year (excluding summer)?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

10. How was your time allocated during the last academic year?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

11. How will your time be allocated during the coming summer?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

12. How was your time allocated during the last summer?

% Teaching	% Research	% Administration	% Other
_____	_____	_____	_____

Course Information

1. How many office hours, if any, do you hold for this course? _____

2. What percentage of students in this course come to these office hours?..... _____

3. During 'lecture' hours, what percentage of your time is spent:
   (a) in lecturing?..... _____
   (b) in class discussion?..... _____

4. During 'tutorial' hour(s), what percentage of time is spent
   (a) in lecturing?..... _____
   (b) in discussion?..... _____
   (c) other? Specify _____

5. Allocate 100 points among the teaching methods to reflect the contribution you believe each has made on average to the economics comprehension of students in this course.

Lectures	Text-book	Prog. Text	Read-ings	TIPS	Cases	Tutorials	None of These	TOTAL
								100

Instructor Questionnaire (3)

6. Consult the Course Management Plan and indicate, by week, how many hours you expect students to study for this course, excluding lectures and tutorials.

Wk.	1	2	3	4	5	6	7	8	9	10	..	..	..	..	..	..	..
Hrs.																	

7. Students will complete the faculty evaluation form below. We intend to run regressions in which overall rating of the instructor will be the dependent variable and in which the listed attributes will be the independent variables. The regression coefficients can be thought of as the weights students attach to instructor attributes.

First, what weights would you assign to each of the instructor attributes listed? (Allocate 100 points). Second, what weights do you think your students will assign to each of the instructor attributes? (Allocate 100 points). Third, what important instructor attributes, if any, do you think have been omitted from the list? Fourth, how much of the variance in overall ratings do you think will be explained by the instructor attributes listed? (i.e, estimate the R^2).

Attributes	7.1 Your Weights (Σ = 100)	7.2 Expected Student Weights (Σ = 100)
Imparts enthusiasm.....		
Knows subject matter well.....		
Is well prepared for class.....		
Demonstrates practical applications of course material.....		
Presents material with clarity.....		
Speaks clearly and distinctly.....		
Uses blackboard effectively.....		
Is available outside class.....		
Is sensitive to students' level of understanding and is responsive to students' questions.....		
Has respect for students' opinions.....		
Provides helpful comments on assignments.....		
Totals:	100	100

7.3 Important instructor attributes missing from the list above:_____

_____

7.4 Anticipated percentage of variance explained (i.e., estimated R^2)___.

Instructor Questionnaire (4)

New Techniques

In comparing this course with a traditional lecture course, we require data on costs and benefits, some of which at this stage, will be subjective.

1. Do you think this course is an improvement on the traditional lecture course?..... Yes/No

   Why?_____

   _____

2. What has been the reaction of students to the course? _____

   _____

3. Which, if any, of the new techniques do you plan to adopt?_____

   Justify:_____

   _____

3.1 In what way do you intend to modify any of the new techniques you are planning to adopt? Explain.....

   _____

3.2 What, if any, are the resource reallocation implications for your department? Explain... _____

   _____

3.3 Do you anticipate any of your colleagues in the economics department altering their teaching practices in the light of this experiment?..... Yes/No

   Explain:_____

   _____

3.4 Do you anticipate any instructors in other departments altering their teaching practices in the light of this experiment?..... Yes/No

   Explain:_____

   _____

Answer Sheet for TIPS Micro Survey 1.1

	1 - 2
Last name: First name:	
Student number:	8 - 1
	16 - 2

Please fill in the circle which you think corresponds to the correct answer. Erase completely any answer you wish to change.

1	1	2	3	4	7	1	2	3	4
	0	0	0	0		0	0	0	0
2	1	2	3	4	8	1	2	3	4
	0	0	0	0		0	0	0	0
3	1	2	3	4	9	1	2	3	4
	0	0	0	0		0	0	0	0
4	1	2	3	4	10	1	2	3	4
	0	0	0	0		0	0	0	0
5	1	2	3	4	11	1	2	3	4
	0	0	0	0		0	0	0	0
6	1	2	3	4	12	1	2	3	4
	0	0	0	0		0	0	0	0

When you have completed the survey please detach this sheet and hand it in as instructed. You may keep the copies of the questions for your records, and you will find them useful when the results of your performance on this survey are returned to you.

Instructor Questionnaire (5)

When the data in this experiment have been analysed we shall be holding a conference for all participating institutions. Prior to the meeting we shall require additional information on both the experiment and plans for reorgansiation of the Economics 1 course and concomittant costs.

However, at this time any comments you have on the techniques or the experiment would be appreciated.

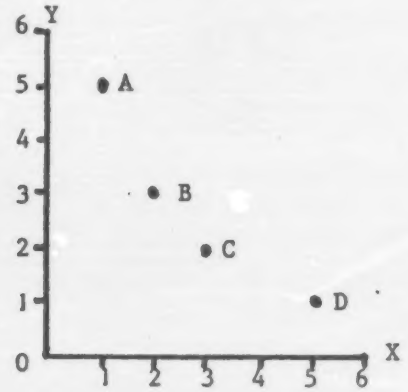
SOME BASIC TOOLS AND TERMINOLOGY IN THE STUDY OF ECONOMICS

Name: _____ Student Number: _____

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left.

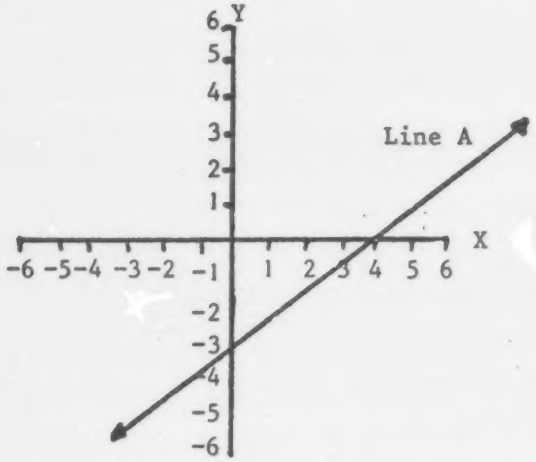
Reading a Graph and Some Basic Terminology

____1. The point (1,5) corresponds to what letter?



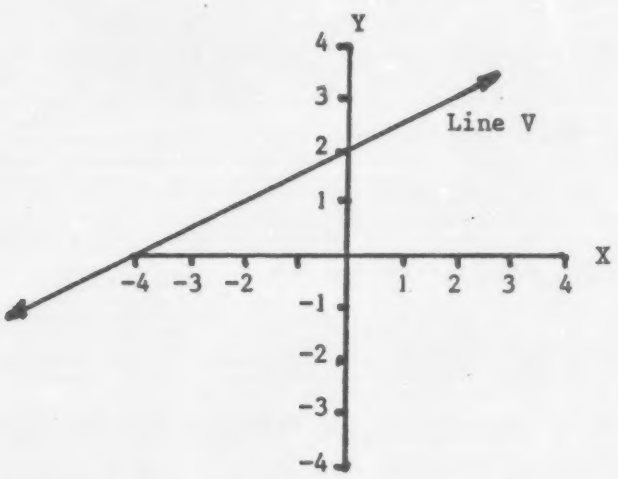
1) A
2) B
3) C
4) D

____2. Identify the coordinates of two points on Line A.



1) (4,0); (-3,0)
2) (4,0); (0,-3)
3) (-3,0); (0,4)
4) (0,4); (0,-3)

Questions, 3, 4 and 5 are based on the graph below.



_____3. Identify the x-intercept of Line V.

1) 0
2) -4
3) 2
4) 4

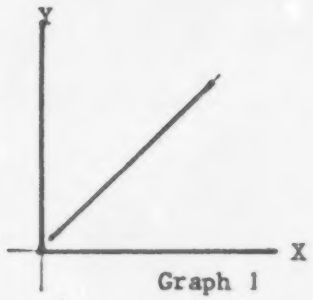
_____4. Identify the y-intercept of Line V.

1) 2
2) -4
3) 0
4) -2

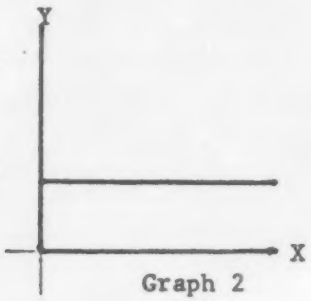
_____5. Calculate the slope of Line V.

1) 1/2
2) -1/2
3) 2/1
4) -2/1

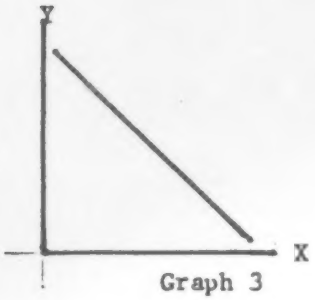
Questions 6, 7 and 8 are based on the graphs below.



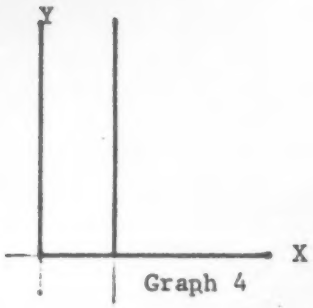
Graph 1



Graph 2



Graph 3



Graph 4

_____6. The amount of y does not depend upon the amount of x in Graph:

1) 1
2) 2
3) 3
4) 4

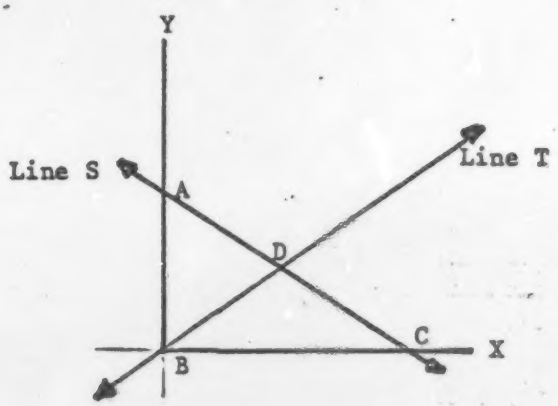
_____7. The amount of y is directly or positively related to the amount of x in Graph:

1) 1
2) 2
3) 3
4) 4

_____8. The amount of y is inversely or negatively related to the amount of x in Graph:

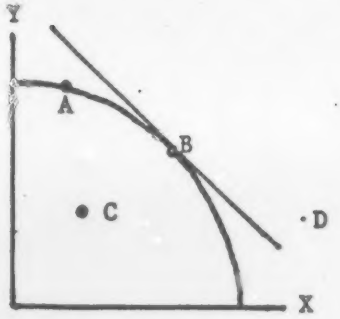
1) 1
2) 2
3) 3
4) 4

_____9. What is the point of intersection of Line S and Line T?



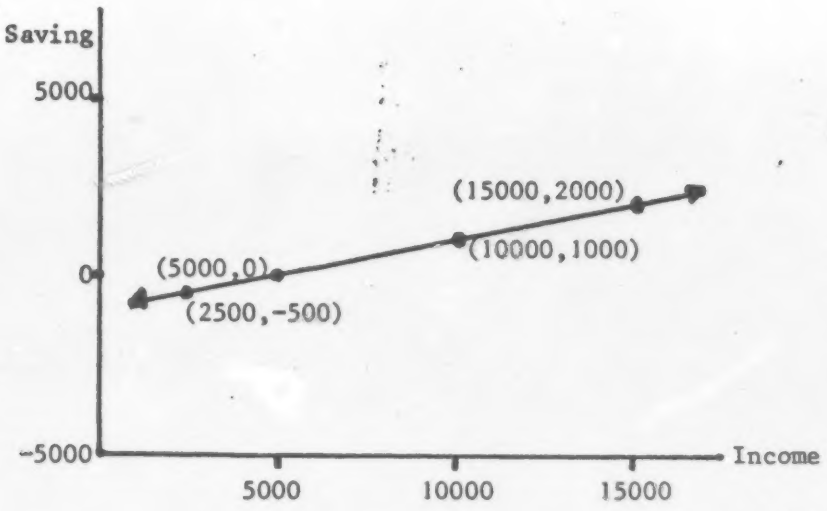
1) A
2) B
3) C
4) D

_____10. Which point corresponds to a point of tangency?



1) A
2) B
3) C
4) D

Questions 11-15 are based on the graph below.



_____11. When income increases, saving:

1) decreases
2) remains the same
3) increases
4) saving and income are not related

_____12. When income decreases, saving:

1) decreases
2) remains the same
3) increases
4) saving and income are not related

_____13. The relation between income and saving is called:

1) inverse or negative
2) direct or positive
3) parallel to one axis
4) direct or negative

_____14. If income were $20,000, saving would be:

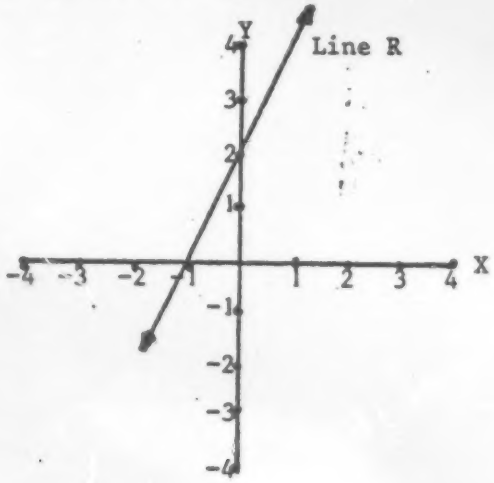
1) $1250
2) $1500
3) $2500
4) $3000

_____15. The slope of the line relating saving and income is:

1) 5/1
2) 1/5
3) -5/1
4) -1/5

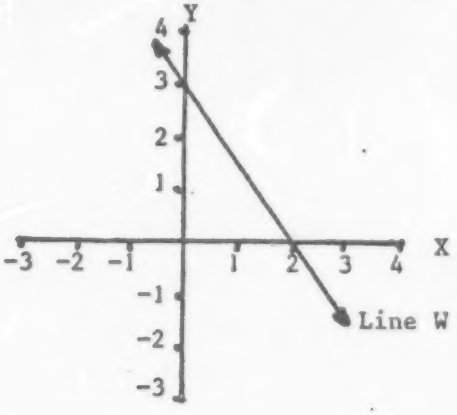
Graphs and the Equation for a Line

_____16. Identify the equation of Line R.



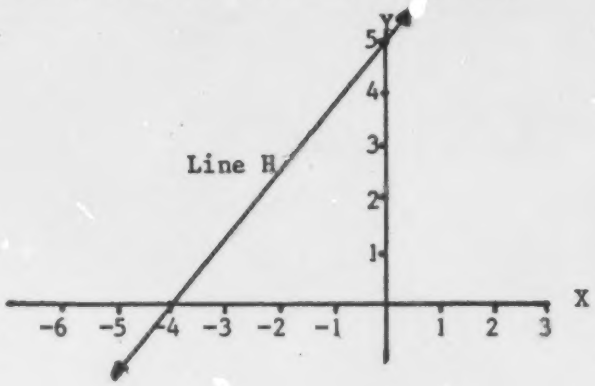
1) $y = 2 + x$
2) $y = 1 + (1/2)x$
3) $y = 2 + 2x$
4) $y = -1 + (1/2)x$

_____17. Which of the following is the equation of Line W?



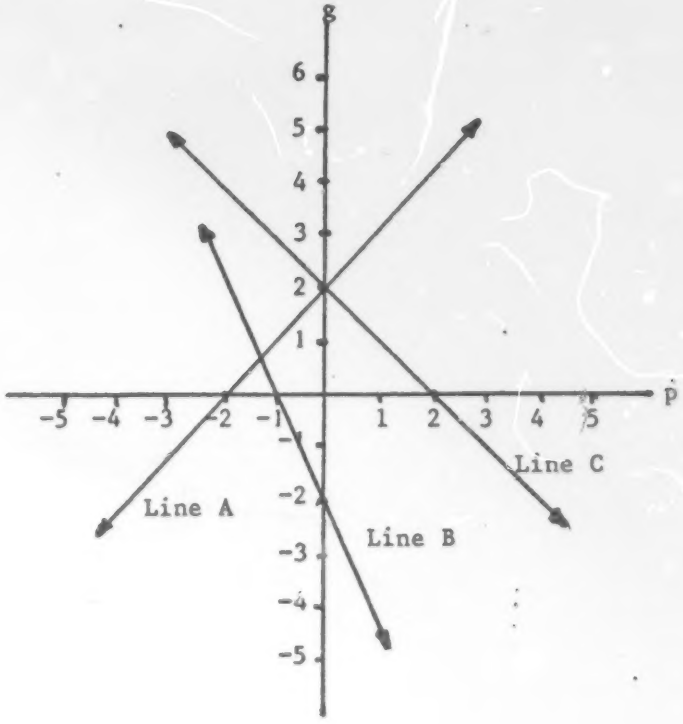
1) $y = 6 - 3x$
2) $y = -3 - (3/2)x$
3) $y = (4/3) - (2/3)x$
4) $y = 3 - (3/2)x$

_____18. Which of the following is the equation of Line H?



1) $y = (5/4)x + 5$
2) $y = (4/5)x - 4$
3) $y = 5 + (4/5)x$
4) $y = 4 + (5/4)x$

_____19. Which of the following lines is a graph of the equation $g = 2 \div p$?



1) Line A
2) Line B
3) Line C
4) None of the above

Questions 20-22 are based on the linear equation: $y = 3 - (3/5)x$

_____20. The numerical value of the y-intercept is:

1) 0
2) 5
3) 3
4) 3/5

_____21. The numerical value of the slope is:

1) 5/3
2) -5/3
3) 3/5
4) -3/5

_____22. The numerical value of the x-intercept is:

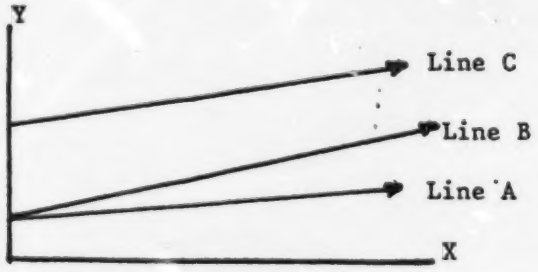
1) 0
2) 5
3) 3
4) 3/5

Basic Algebra of Intersecting and Non-Intersecting Lines

_____23. Solve for "m" in the linear equation $9 + (4/7)m = 12$

1) 3
2) 5
3) 12/7
4) 21/4

Questions 24 and 25 are based on the graph below.



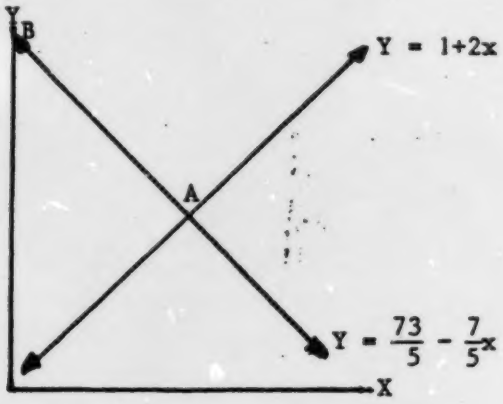
_____24. A movement from Line A to Line B involves what changes?

1) a change in the slope only
2) a change in the intercept only
3) a change in both the slope and the intercept
4) neither a change in the slope nor the intercept

_____25. A movement from Line A to Line C involves what changes?

1) a change in the slope only
2) a change in the intercept only
3) a change in both the slope and the intercept
4) neither a change in the slope nor the intercept

Questions 26 and 27 are based on the graph below.



_____26. The solution of the two intersecting lines is:

1) $y = 1 + 2x$
2) $y = 15 - 5x$
3) Point A
4) Point B

_____27. What are the values of x and y at Point A?

1) $x = 5;\ y = 11$
2) $x = 16/3;\ y = 35/3$
3) $x = 16/7;\ y = 39/7$
4) $x = 2;\ y = 5$

_____28. Solve the following equations simultaneously for x and y:
$y = -37 + 5x; \quad y = 15 - (3/2)x$

1) $x = 141/17;\ y = 76/17$
2) $x = 94/13;\ y = -11/13$
3) $x = 8;\ y = 3$
4) $x = 3;\ y = 8$

Useful Notation Definitions

= equals
≠ not equal to
≡ is defined as being equal to; e.g. $\pi \equiv TR - TC$
profit is defined as being equal to total revenue - total cost
> greater than
≥ greater than or equal to
< less than
≤ less than or equal to
f = is a function of i.e. depends upon; e.g. $c = f(y)$
consumption is a function of, or depends upon, income.

Σ (sigma for sum)

$$x_1 + x_2 + x_3 = \sum_{j=1}^{3} x_j$$

$$x_0 + x_1 + \ldots + x_n = \sum_{k=0}^{n} x_k$$

Δ (delta, a small change in)
ΔP - a small change in the price

$\frac{\Delta q}{q} \Big/ \frac{\Delta p}{P}$ = ratio of relative change in quantity demanded to relative change in price

= price elasticity of demand

$\frac{\Delta q}{q} \Big/ \frac{\Delta y}{y}$ = income elasticity of demand

P_x = price of good x

Y_t = income in year t (this year)

Y_{t-1} = income in year t-1 (last year)

Y_{t+1} = income in year t+1 (next year)

A bar above a variable means that the value of that variable is assumed to be given: e.g. $D_{CL} = f(P_{CL}, \bar{P}_S, \bar{P}_H, \bar{Y})$

Your demand for Carlsberg Lager (D_{CL}) depends upon the price of Carlsberg Lager and also the price of Skol (assumed given), the price of McEwan's (assumed given) and your income (assumed given).

D_{CL} is the <u>dependent</u> variable in the above i.e. it depends upon other variables which are <u>independent</u> variables.

Variables whose magnitudes are determined by a model are <u>endogenous</u> variables. Those variables whose magnitudes are not determined by the model are <u>exogenous</u> variables.

STUDENT INFORMATION QUESTIONNAIRE

We would like you to provide the following information for the purposes of enabling us to plan this course more clearly to your needs. Although you may have provided the information already, it is more convenient for us to ask for it now rather than to search through student records. Thank you for your help.

Last name: First name:

Sex: If male circle 1, if female circle 2 1 2

Date of Birth: Year 19 [ ][ ] Month [ ][ ]

It is possible that the reasons for taking economics are related to students' attitudes toward the subject and hence have implications for the methods of teaching which best suit specific students. Answer the question below which refers to your student type: A or B or C.

A. You are studying another subject for which this is a required course. Circle the number which applies.
Yes... 1
No.... 2

B. You are studying for an economics degree for which this is the first course. Circle the number corresponding to your reason.

You studied economics at school, and this stimulated your interest..... 1

You did not study economics at school, but you heard about it from your teacher or other students..... 2

The entry requirements were minimal..... 3

You heard that it is a relatively easy subject in which to obtain a degree..... 4

It is a subject you wish to know about because of your political ideals..... 5

You felt it would be the subject with something useful to say about world issues and problems..... 6

It is a mystery to you why you are studying economics..... 7

Other - please be brief_____ 8

C. You are studying for a degree in a subject in which you are required to take one or more elective outside subjects. Circle the number.

You heard that economics was an easy option..... 1

It seemed a good complement to your other studies..... 2

It was the only real alternative open to you..... 3

It was the least unattractive of all the possibilities..... 4

You made a more or less random selection..... 5

You wished to know more about economics because of your political ideals..... 6

You felt that economics would equip you to analyse real world problems and issues..... 7

Psychological Inventory

Test Administration Instructions

1 Distribute to the students the Psychological Inventory booklets and the corresponding answer sheets.

2 Ask the students to complete the information section of the answer sheet and read the instructions on the front of the booklet.

3 Inform the students that this is merely an attempt to measure positive character traits; it is NOT a test. The questions should be answered honestly without deliberation. All information will be kept strictly confidential.

4 The Inventory will require approximately 15 minutes for completion.

5 Collect the Inventory booklets.

6 Ask the students to check that their name and identification number are legible on the answer sheet.

7 Please collect and return the answer sheets together with the booklets.

NAME: _____ AGE: _____ SEX: _____

(please print)

INSTITUTION: _____

Directions: Be sure to fill in your name and other information requested. Then answer TRUE (T) or FALSE (F) for each statement by putting an X on the appropriate circle as in the example shown at the right.

T	F
X	O

	T	F		T	F		T	F		T	F		T	F		T	F
1.	O	O	22.	O	O	43.	O	O	64.	O	O	85.	O	O	106.	O	O
2.	O	O	23.	O	O	44.	O	O	65.	O	O	86.	O	O	107.	O	O
3.	O	O	24.	O	O	45.	O	O	66.	O	O	87.	O	O	108.	O	O
4.	O	O	25.	O	O	46.	O	O	67.	O	O	88.	O	O	109.	O	O
5.	O	O	26.	O	O	47.	O	O	68.	O	O	89.	O	O	110.	O	O
6.	O	O	27.	O	O	48.	O	O	69.	O	O	90.	O	O	111.	O	O
7.	O	O	28.	O	O	49.	O	O	70.	O	O	91.	O	O	112.	O	O
8.	O	O	29.	O	O	50.	O	O	71.	O	O	92.	O	O	113.	O	O
9.	O	O	30.	O	O	51.	O	O	72.	O	O	93.	O	O	114.	O	O
10.	O	O	31.	O	O	52.	O	O	73.	O	O	94.	O	O	115.	O	O
11.	O	O	32.	O	O	53.	O	O	74.	O	O	95.	O	O	116.	O	O
12.	O	O	33.	O	O	54.	O	O	75.	O	O	96.	O	O	117.	O	O
13.	O	O	34.	O	O	55.	O	O	76.	O	O	97.	O	O	118.	O	O
14.	O	O	35.	O	O	56.	O	O	77.	O	O	98.	O	O	119.	O	O
15.	O	O	36.	O	O	57.	O	O	78.	O	O	99.	O	O	120.	O	O
16.	O	O	37.	O	O	58.	O	O	79.	O	O	100.	O	O	121.	O	O
17.	O	O	38.	O	O	59.	O	O	80.	O	O	101.	O	O	122.	O	O
18.	O	O	39.	O	O	60.	O	O	81.	O	O	102.	O	O	123.	O	O
19.	O	O	40.	O	O	61.	O	O	82.	O	O	103.	O	O	124.	O	O
20.	O	O	41.	O	O	62.	O	O	83.	O	O	104.	O	O	125.	O	O
21.	O	O	42.	O	O	63.	O	O	84.	O	O	105.	O	O	126.	O	O
															127.	O	O

1 The only interesting part of the newspaper is the "comic strips."

2 I looked up to my father as an ideal man.

3 Our thinking would be a lot better off if we would just forget about words like "probably", "approximately", and "perhaps."

4 I have a very strong desire to be a success in the world.

5 I liked "Alice in Wonderland" by Lewis Carroll.

6 I usually go to the cinema more than once a week.

7 I have had very peculiar and strange experiences.

8 I am often said to be hotheaded.

9 I gossip a little at times.

10 When I was going to school I played truant quite often.

11 I have very few fears compared to my friends.

12 For most questions there is just one right answer, once a person is able to get all the facts.

13 I think I would like the work of a school teacher.

14 When someone does me a wrong I feel I should pay the person back if I can, just for the principle of the thing.

15 I seem to be about as capable and bright as most others around me.

16 I usually take an active part in the entertainment at parties.

17 The trouble with many people is that they don't take things seriously enough.

18 It is always a good thing to be frank.

19 A thunderstorm terrifies me.

20 I often feel as if the world were just passing me by.

21 People often expect too much of me.

22 When in a group of people I have trouble thinking of the right things to talk about.

23 It is annoying to listen to a lecturer who can not seem to make up his or her mind as to what he or she really believes.

24 I don't blame anyone for trying to grab all he or she can get in this world.

25 Planning one's activities in advance is very likely to take most of the fun out of life.

26 I was a slow learner in school.

27 I like poetry.

28 People who seem unsure and uncertain about things make me feel uncomfortable.

29 There is something wrong with a person who can't take orders without getting angry or resentful.

30 Sometimes without any reason or even when things are going wrong I feel excitedly happy, "on top of the world."

31 I wake up fresh and rested most mornings.

32 Most people make friends because friends are likely to be useful to them.

33 It is all right to get around the law if you don't actually break it.

34 Parents are much too easy on their children nowadays.

35 I have a tendency to give up easily when I meet difficult problems.

36 I certainly feel useless at times.

37 I read at least ten books a year.

38 I have the wanderlust and am never happy unless I am roaming or travelling about.

39 I am sometimes cross and grouchy without any good reason.

40 My parents have often disapproved of my friends.

41 Teachers often expect too much work from the students.

42 My way of doing things is apt to be misunderstood by others.

43 I have had blank spells in which my activities were interrupted and I have not known what was going on around me.

44 I have had more than my share of things to worry about.

45 I am quite often not in on the gossip and talk of the group to which I belong.

46 I like to keep people guessing what I am going to do next.

47 I think I would like to fight in a boxing match sometime.

48 In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well.

49 If given the chance I would make a good leader of people.

50 I like to plan a schedule for study at home and then follow it.

51 I enjoy a race or game better when I bet on it.

52 I have often found people jealous of my good ideas, just because they had not thought of them first.

53 In school I was sometimes sent to the headmaster for misbehaving.

54 People pretend to care more about one another than they really do.

55 I like to read about history.

56 I am so touchy on some subjects that I can not talk about them.

57 The future is too uncertain for a person to make serious plans.

58 I like to talk before groups of people.

59 The person who provides temptation by leaving valuable property unprotected is about as much to blame for its theft as the one who steals it.

60 I am often bothered by useless thoughts which keep running through my mind.

61 I like to plan out my activities in advance.

62 I must admit I find it very hard to work under strict rules and regulations.

63 I like large, noisy parties.

64 I sometimes feel that I am a burden to others.

65 Only a fool would try to change our British way of life.

66 In school I found it very hard to talk before the class.

67 I always try to do at least a little better than what is expected of me.

68 Lawbreakers are almost always caught and punished.

69 I would be very unhappy if I were not successful at something I had seriously started to do.

70 I dread the thought of an earthquake.

71 I like science.

72 I often lose my temper.

73 My parents were always very strict and stern with me.

74 I am bothered by people outside, on buses, in shops, etc. watching me.

75 I often get disgusted with myself.

76 Society owes a lot more to the businessman and the manufacturer than it does to the artist and the professor.

77 I like to read about science.

78 I have never been in trouble because of my sex behaviour.

79 I think I would like to belong to a motor cycling club.

80 I used to like it very much when one of my papers was read to the class in school.

81 I feel that I have often been punished without cause.

82 I often get feelings like crawling, burning, tingling, or "going to sleep" in different parts of my body.

83 I don't seem to care what happens to me.

84 I often wish people would be more definite about things.

85 It is annoying to listen to a lecturer who cannot seem to make up his or her mind as to what he or she really believes.

86 I find that a well-ordered mode of life with regular hours is congenial to my temperament.

87 It is hard for me to sympathise with someone who is always doubting and unsure about things.

88 I often start things I never finish.

89 I work under a great deal of tension.

90 Our thinking would be a lot better off if we would just forget about words like "probably", "approximately", and "perhaps."

91 I never make judgements about people until I am sure of the facts.

92 I must admit I have no great desire to learn new things.

93 A strong person will be able to make up his or her mind even on the most difficult questions.

94 I seldom worry about my health.

95 For most questions there is just one right answer once a person is able to get all the facts.

96 I like to have a place for everything and everything in its place.

97 I have never seen a vision.

98 I don't like to work on a problem unless there is the possibility of coming out with a clear-cut and unambiguous answer.

99 It bothers me when something unexpected interrupts my daily routine.

100 The future seems hopeless to me.

101 I have had no difficulty starting or holding my urine.

102 Most of the arguments or quarrels I get into are over matters of principle.

103 I am known as a hard and steady worker.

104 Success is a matter of will power.

105 I don't like things to be uncertain and unpredictable.

106 I get pretty discouraged with the law when a clever lawyer gets a criminal free.

107 I am quite a fast reader.

108 I daydream very little.

109 Once I have my mind made up I seldom change it.

110 At times I have been so entertained by the cleverness of a crook that I have hoped he would get away with it.

111 I think I am more strict about right and wrong than most people.

112 I have had attacks in which I could not control my movements or speech, but in which I knew what was going on around me.

113 I am in favour of a very strict enforcement of all laws, regardless of the consequences.

114 I have had no difficulty in starting or holding my bowel movement.

115 I always see to it that my work is carefully planned and organised.

116 I do not read every editorial in the newspaper every day.

117 Any job is all right with me, so long as it pays well.

118 It often seems that my life has no meaning.

119 I feel like giving up quickly when things go wrong.

120 If people had not had it in for me I would have been much more successful.

121 I am not afraid of picking up a disease or germs from doorknobs.

122 It is more important that a father be kind than that he be successful.

123 My skin seems to be unusual sensitive to touch.

124 I have often been frightened in the middle of the night.

125 The trouble with most people is that they don't take things seriously enough.

126 I become irritated by writers who go out of their way to use strange and unusual words.

127 I set a high standard for myself and I feel others should do the same.

Pre-Test of Microeconomics Comprehension

1. Distribute to the students the answer sheets.

2. Ask the students to complete the information section of the answer sheet.

3. Distribute to the students the Pre-Test booklets requesting that they not open them until told to do so. Then ask that they read the instructions on the first page. Explain that they have 25 minutes to complete the Test. Tell them to turn the page and begin.

4. Collect the test booklets.

5. Ask the students to check that their name and identification number are legible on the answer sheet.

6. Please collect and return the answer sheet together with the booklets.

Answer Sheet for Pre-Test of Microeconomics Comprehension

First name: Last name:

Please circle the letter which you think corresponds to the correct answer. Erase completely any answer you wish to change.

Q. 1 a b c d	Q.11 a b c d	Q.21 a b c d	Q.31 a b c d	Q.41 a b c d
Q. 2 a b c d	Q.12 a b c d	Q.22 a b c d	Q.32 a b c d	Q.42 a b c d
Q. 3 a b c d	Q.13 a b c d	Q.23 a b c d	Q.33 a b c d	Q.43 a b c d
Q. 4 a b c d	Q.14 a b c d	Q.24 a b c d	Q.34 a b c d	Q.44 a b c d
Q. 5 a b c d	Q.15 a b c d	Q.25 a b c d	Q.35 a b c d	Q.45 a b c d
Q. 6 a b c d	Q.16 a b c d	Q.26 a b c d	Q.36 a b c d	Q.46 a b c d
Q. 7 a b c d	Q.17 a b c d	Q.27 a b c d	Q.37 a b c d	Q.47 a b c d
Q. 8 a b c d	Q.18 a b c d	Q.28 a b c d	Q.38 a b c d	Q.48 a b c d
Q. 9 a b c d	Q.19 a b c d	Q.29 a b c d	Q.39 a b c d	Q.49 a b c d
Q.10 a b c d	Q.20 a b c d	Q.30 a b c d	Q.40 a b c d	Q.50 a b c d

1. Which of these would determine, in a market economy, how the factors of production are to be allocated among different productive activities?

   a. the exchange value of money.
   b. social custom.
   c. the needs of the managerial class.
   d. how incomes are spent.

2. Economic goods are termed scarce goods because they

   a. are not available in sufficient quantities to satisfy all wants for them.
   b. are not produced in sufficient quantities to satisfy the effective demand for them.
   c. cannot be increased in quantity to any significant extent.
   d. are of primary importance in satisfying the needs of a society.

3. If consumers have budgeted a fixed amount of money to buy a certain commodity, and within a certain range of prices will spend neither more nor less than this amount on it, then their demand curve in this price range would properly be designated to be

   a. in equilibrium.
   b. perfectly elastic.
   c. perfectly inelastic.
   d. of unitary elasticity.

4. Which of the following would <u>not</u> cause a shift in the demand curve for peas?

   a. an increase in consumers' incomes.
   b. an increase in the price of sweet corn.
   c. a large decrease in the price of potatoes.
   d. a decrease in the price of peas.

5. "If its advocates are correct, the minimum wage bill passed this week by the House of Representatives would raise wages for nearly seven million underpaid workers over the next few years but would have no noticeable adverse effects on business, on employment, or on the price level." -- <u>The New York Times</u>, May 29, 1966, p. 6E. The quotation implies that the demand for the labor services of the seven million workers mentioned with respect to the price of labor services.

   a. is elastic.
   b. is inelastic.
   c. has unit elasticity.
   d. may be any of the three above.

6. If the total cost of producing 10 units is $100 and the margin cost of the eleventh unit is $21, then

   a. total variable costs of 11 units are $121.
   b. total fixed costs are $79.
   c. the marginal cost of the tenth unit is more than $21.
   d. the average total cost of 11 units is $11.

7. For a commodity produced under conditions of monopoly,

   a. marginal cost will be greater than price.
   b. marginal cost will equal price.
   c. marginal cost will be less than price.
   d. marginal cost will equal marginal revenue and average revenue.

8. Normal profits

   a. are a cost because they represent payments necessary to keep the resources which the businessman owns in his own enterprise.
   b. are not a cost because they cannot be accurately calculated.
   c. are not a cost because they accrue to the entrepreneur.
   d. are not an economic cost because they are not necessary to acquire and retain entrepreneurial ability.

9. Economic cost can best be defined as

   a. all costs exclusive of payments to fixed factors of production.
   b. compensations which must be received by resource owners to insure their continued supply.
   c. any contractual obligation to labor or material suppliers.
   d. any contractual obligation which results in a flow of money expenditures from an enterprise to resource suppliers.

10. "Price adjustments serve to keep the quantities supplied and demanded equal. If at the initial price there is excess demand, the price will rise. The price increase has two effects: it tends to shift the demand curve down because people are willing to buy a smaller quantity at a higher price and it tends to shift the supply curve because producers find it profitable to produce a greater output at a higher price. The price will adjust until there is no excess demand."

    a. The analysis in the quotation is correct.
    b. The question confuses shifts in curves with movements along the curve.
    c. The quotation is free of logical error, but does not describe the way prices behave in actual, competitive markets.
    d. The quotation would be correct is "excess supply" were substituted for "excess demand."

11. "The price of wheat rose sharply (A) because the dry spell reduced the yield per acre and (B) because millers sought to stockpile wheat to protect themselves from future price increases that would occur if the drought were to continue." This quotation says that the price rise was due to

    a. a shift in the demand curve and a movement along the supply curve.
    b. a shift in the supply curve and a movement along the demand curve.
    c. shifts in both the demand and supply curves.
    d. other factors.

12. A shift to the left of the demand curve for X together with a shift to the right of the supply curve for X tends

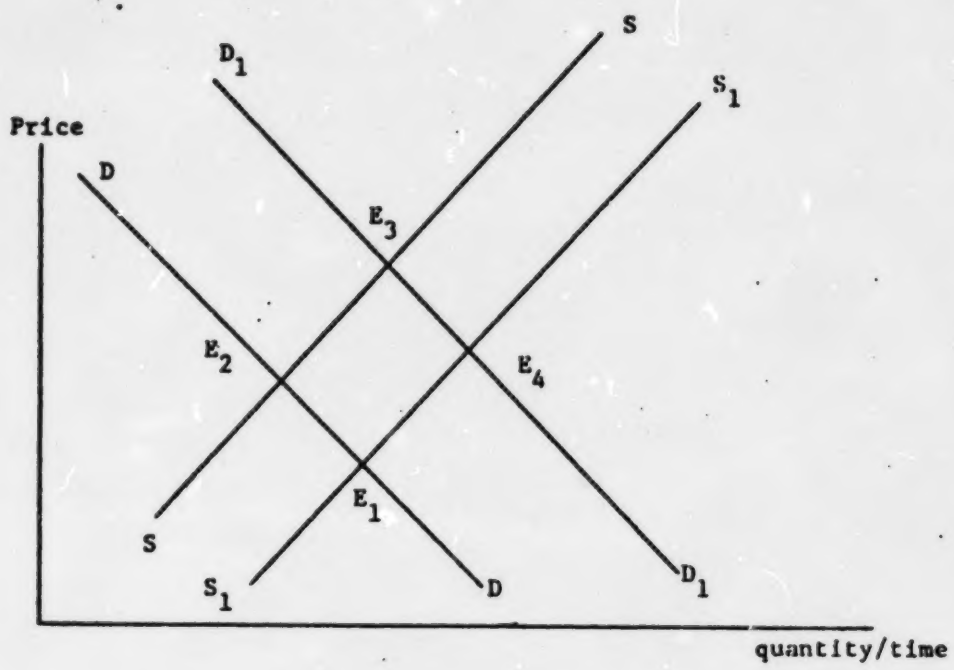
    a. to increase the price of X; the effect upon the quantity exchanged is indeterminant.
    b. to increase the price of X and to increase the quantity exchanged.
    c. to decrease the price of X and to decrease the quantity exchanged.
    d. to decrease the price of X; the effect upon quantity exchanged is indeterminant.

13. Suppose the government wants to raise money by means of per-unit commodity tax. It wants the incidence or burden of this tas to fall mainly or entirely on buyers, not suppliers. Also it wants to disturb the quantity bought and sold as little as possible. Which of the following demand or supply curves best meets these requirements?

    a. highly inelastic supply.
    b. perfectly elastic demand.
    c. perfectly elastic supply.
    d. highly inelastic demand.

14. In a perfectly competitive economy, which of the following is <u>not</u> a necessary condition of economic efficiency?

    a. Consumers are free to spend their income as they wish.
    b. The capital stock is increasing through investment.
    c. Each producing unit is using the method of production which yields the least cost per unit of output.
    d. Output of each product is at the point where price equals marginal cost.



15. A movement from E_2 to E_1 represents:

    a. a decrease in supply.
    b. a decrease in quantity demanded.
    c. a decrease in demand.
    d. an increase in supply.

16. A movement from E_2 to E_3 represents

    a. an increase in supply.
    b. a decrease in supply.
    c. an increase in quantity supplied.
    d. a decrease in quantity demanded.

17. A movement from E_4 to E_1 represents

    a. a decrease in demand.
    b. an increase in demand.
    c. an increase in quantity supplied.
    d. a decrease in supply.

18. Given the supply curve of lamb chops, a reduction in the price of pork chops will tend to

    a. shift in the demand curve for lamb chops to the right.
    b. shift in the demand curve for pork chops to the right.
    c. raise the price of lamb chops.
    d. lower the price of lamb chops.

The next two questions are based on the lettered sentences in the following paragraph.

A. The football stadium at XYZ University was enlarged three years ago from 30,000 to 35,000 seats.
B. Since then the stadium has never been full.
C. Tickets cost five dollars.
D. A marketing survey shows that the University's gate receipts would be lower if it charged lower prices even though the number of tickets sold would be greater.

19. What does sentence D imply about the elasticity of demand with respect to price?

    a. Demand is elastic.
    b. Demand is inelastic.
    c. Demand is at unit elasticity.
    d. It implies nothing about elasticity of demand.

20. From sentences A through D we can deduce

    a. the demand curve for football seats is vertical.
    b. the university is maximizing revenue.
    c. seats at the football games are not economic goods.
    d. none of the above.

21. During the first year that the Salk vaccine for infantile paralysis became available, the quantity produced was too small to inoculate all those in susceptible age groups. Although the cost of production and the price were not particularly high, production could not be expanded rapidly enough to meet the demand. The government therefore intervened to regulate its distribution. What do these facts suggest about the price of Salk vaccine during the first year it was available?

    a. At equilibrium.
    b. Above equilibrium.
    c. Below equilibrium.
    d. None of the above.

22. If both supply and demand rise,

a. price would usually increase and quantity sold would decrease.
b. price would increase or decrease and quantity sold would increase.
c. price would usually decrease and quantity sold would decrease.
d. price would usually increase but the quantity sold could decrease or remain unchanged.

23. If a firm finds that its Marginal Revenue exceeds its Marginal Cost, the maximum-profit rules require that firm to

a. increase its output in both perfect and imperfect competition.
b. increase its output in perfect but not necessarily in imperfect competition.
c. increase its output in imperfect but not necessarily in perfect competition.
d. decrease its output in both perfect and imperfect competition.

24. If a firm sells its product at the market price, whatever that price may be, and wants to earn as much profit as that price makes possible, it should

a. try to produce and sell that quantity of output at which Marginal Cost has risen to equality with price.
b. try to sell all the output it can produce.
c. try to produce and sell that quantity of output at which Marginal Cost has reached its minimum possible level.
d. never let Marginal Cost reach equality with price, since this is the point at which profits become zero.

25. In the long-run, if marginal cost is equal to marginal revenue, and selling price is just below total average cost, the firm will

a. leave the industry.
b. maximize profits.
c. incur losses, but continue to operate.
d. increase output.

26. In a market economy, the price system reacts to a shortage of a commodity by

a. lowering the price and profits of firms producing the commodity.
b. raising the price and producer profits.
c. lowering the price, but increasing producer profits.
d. raising the price, but lowering producer profits.

27. When there are both monopoly and competitive producers in a market economy, there will not be an efficient allocation of resources because:

    a. the monopolies will produce too little output and competitive firms will produce too much output.
    b. the prices of all goods will not reflect their marginal costs of production.
    c. even though excess profits are earned in the monopoly industries, capital is prevented from moving into those industries.
    d. all of the above.

28. Which of the following is an important function of prices in a market economy:

    a. To insure an equal distribution of goods and services.
    b. To equate quantities supplied and demanded.
    c. To ensure that all industries will be perfectly competitive in the long-run.
    d. To equate the marginal utilities of all goods consumed.

29. In November of 1958, the Illinois Central Railroad asked the Illinois Commerce Commission for permission to increase its commuter rates by 20%. The railroad argued that declining revenues made this rate increase essential. Opponents of the rate increase contended that the railroad's revenues would fall because of the rate hike. It can be concluded that:

    a. the railroad felt that the demand for passenger service was elastic and the opponents of the rate increase felt it was inelastic.
    b. the railroad felt that the demand for passenger service was inelastic and the opponents of the rate increase felt it was elastic.
    c. both groups felt that the demand was inelastic but for different reasons.
    d. both groups felt that the demand was elastic but for different reasons.

30. The rule for rational budget allocation by a consumer is that:

    a. the marginal utility of each good purchased divided by its price must be equal.
    b. the marginal utility of each good purchased multiplied by its price must be equal.
    c. the marginal utility of each good must be equal.
    d. the marginal utility of each good must be zero.

31. If the prices of commodities A, B, and C are equal, then for a consumer to be at equilibrium:

    a. he must buy such quantities as to make their total utilities equal.
    b. he should divide his budget equally among these commodities.
    c. he should regard these commodities as providing equal satisfaction value.
    d. he should buy these commodities in the quantities needed to make their marginal utilities equal.

32. In the situation of pure (or perfect) competition, the relation between market price (P) and marginal revenue (MR) for each supplying firm is this:

    a. P is less than MR at all or most output levels.
    b. P is greater than MR at all or most output levels.
    c. P is the same as MR at all output levels.
    d. P is either greater than MR or less than MR at particular output levels, but never the same as MR.

33. It will sometimes pay a firm to operate at a loss under pure competition so long as price covers:

    a. average variable cost.
    b. average cost.
    c. marginal revenue.
    d. average fixed cost.

34. If prices rise in a perfectly competitive industry, the firms in that industry in the short-run will:

    a. not increase in number.
    b. try to increase production.
    c. bid for more resources.
    d. all of the above.

35. A firm is operating at minimum cost for the particular quantity of output it is producing (whether that output is the maximum-profit output or not) whenever:

    a. the price of each input employed is equal to the firm's marginal cost.
    b. marginal-physical-products of all inputs employed are equal.
    c. the total quantities of all inputs employed are in proportion to the marginal-physical-products of those inputs.
    d. the marginal-physical-products of all inputs employed are proportional to their prices.

36. A consumer's demand curve for any given commodity is most likely to shift to the right (or upward) with:

a. a rise in the price of substitutes, or a fall in the price of complements.
b. a rise in the price of either substitutes or complements.
c. a fall in the price of substitutes, or a rise in the price of complements.
d. a fall in the price of either substitutes or complements.

37. The following is a complete and correct definition of the demand curve for commodity X. It shows, for a given market:

a. how much of X would be bought at the equilibrium price.
b. how, as people's incomes rise and they have more money to spend, their purchases of X would increase, and by how much.
c. how the amount of money people spend to purchase X changes as the price they must pay for it changes.
d. the amounts of X that would be bought each period, at each and any price, assuming other factors influencing demand (income, tastes, etc.) remain constant.

38. If marginal cost is above average total cost, then:

a. average total cost must be falling.
b. average fixed cost must be rising.
c. average variable cost must be falling.
d. average total cost must be rising.

39. An individual shifts to a new equilibrium position as a result of some change either in prices or in his income. He finds that in his new equilibrium situation, marginal utilities are all lower than they were in the old situation. This means that:

a. he is definitely worse off in his new situation.
b. he is definitely better off in his new situation.
c. he is definitely worse off than in his old situation if his income has changed, but not otherwise.
d. he is definitely better off than in his old situation if prices have changed, but not otherwise.

40. A monopoly finds that at its present level of output and sales marginal revenue equals $5 and average variable cost, which is at a minimum, is $4.10. To maximize profits, the firm should:

a. leave price and output unchanged.
b. increase price and leave output unchanged.
c. decrease price and increase output.
d. increase price and decrease output.

41. When a competitive firm has reached a level of output at which the marginal-revenue-product of each input employed is equal to the price of that input, it:

    a. is producing that output at least possible cost, but is not necessarily at maximum-profit output level.
    b. is at its maximum-profit output level, but is not necessarily producing that output at least possible cost.
    c. is at maximum-profit output level and is producing that output at least possible cost.
    d. is not necessarily either at maximum-profit level of output or at least possible cost for that output.

42. The profit-maximizing rule for a firm in pure (or perfect) competition is: price equal to Marginal Cost. The meaning of this rule is:

    a. keep increasing quantity of output (Q) until price (P) has risen to equality with Marginal Cost (MC).
    b. keep increasing Q until P has fallen to equality with MC.
    c. keep increasing q until MC has fallen to equality with P.
    d. keep increasing Q until MC has risen to equality with P.

43. The long-run supply curve of a competitive industry is:

    a. the horizontal summation of the long-run marginal cost curves of all firms in the industry.
    b. the horizontal summation of the long-run marginal cost curves above the average cost curves of all firms in the industry.
    c. the horizontal summation of the long-run average cost curves of all firms in the industry.
    d. none of the above.

44. The short-run supply curve of a firm in perfect competition is:

    a. the rising segment of its short-run marginal cost curve.
    b. the rising segment of its short-run average variable cost curve.
    c. the rising segment of its short-run average fixed cost curve.
    d. the rising segment of its short-run marginal cost curve above its average variable cost curve.

45. When production is being carried on under conditions of diminishing returns -- but total product is still increasing -- then, in the short-run, in order to obtain successive increases in output of 1 extra unit:

    a. smaller and smaller amounts of the variable input will be needed.
    b. adding more of the variable input will do more harm than good, because it must diminish total output instead of increasing it.
    c. the cost of hiring each additional unit of the variable input must steadily increase.
    d. greater and greater amounts of the variable input will be needed.

46. At the quantity of output where Average Cost has reached its minimum level:

    a. average variable cost will equal fixed cost.
    b. profit must be at its maximum level for the firm.
    c. marginal cost will equal average variable cost.
    d. marginal cost will equal average cost.

47. Which of the following <u>cannot</u> be true? As output rises:

    a. average variable cost rises.
    b. total cost rises.
    c. average fixed cost rises.
    d. average total cost rises.

48. In long-run equilibrium under monopoly marginal cost will equal:

    a. price.
    b. average cost.
    c. average revenue.
    d. marginal revenue.

49. If a single firm in pure competition lowers its price below the equilibrium market price:

    a. It would get a larger share of the market.
    b. It would not maximize profit.
    c. Other firms would lower their prices too.
    d. Other firms would be driven out of the industry.

50. If one wheat farmer attempted to charge prices higher than his competitors, he would lose all his sales because:

a. other producers would retaliate.
b. buyers would recognize the superiority of his high-priced goods.
c. the outputs of other producers are perfect substitutes for his goods.
d. of the law of demand.

MID TERM EXAMINATION

Answer Sheet for Objective Questions: Time allowed - 50 mins

Last name: First name:

Please fill in the circle which you think corresponds to the correct answer. Erase completely any answer you wish to change.

Q. 1 1 2 3 4	Q. 8 1 2 3 4	Q.15 1 2 3 4	Q.22 1 2 3 4	Q.29 1 2 3 4
Q. 2 1 2 3 4	Q. 9 1 2 3 4	Q.16 1 2 3 4	Q.23 1 2 3 4	Q.30 1 2 3 4
Q. 3 1 2 3 4	Q.10 1 2 3 4	Q.17 1 2 3 4	Q.24 1 2 3 4	Q.31 1 2 3 4
Q. 4 1 2 3 4	Q.11 1 2 3 4	Q.18 1 2 3 4	Q.25 1 2 3 4	Q.32 1 2 3 4
Q. 5 1 2 3 4	Q.12 1 2 3 4	Q.19 1 2 3 4	Q.26 1 2 3 4	Q.33 1 2 3 4
Q. 6 1 2 3 4	Q.13 1 2 3 4	Q.20 1 2 3 4	Q.27 1 2 3 4	Q.34 1 2 3 4
Q.7 1 2 3 4	Q.14 1 2 3 4	Q.21 1 2 3 4	Q.28 1 2 3 4	Q.35 1 2 3 4

1. To satisfy wants as fully as possible a society must

   1 choose the best set of goods and services from all feasible sets.

   2 produce various sets of goods and services then choose one set.

   3 ensure that free goods are available to all members of society.

   4 ensure that luxury goods are produced only when necessities are freely available to all.

2. Two individuals who both had baskets containing oranges and apples were observed exchanging voluntarily 3 apples for 2 oranges. It can be concluded that

   1 there were more apples than oranges before the exchange in one individual's basket.

   2 both individuals benefited from the exchange.

   3 one individual benefited more than the other from the exchange.

   4 one individual prefers oranges to apples and the other prefers apples to oranges.

3. Which of the following is correct?

   An economy is operating in an economically efficient manner when

   A goods and services are being produced using the least amount of resources.

   B no individual's utility could be increased.

   C society's wants are being satisfied as fully as possible.

   1 A and B only
   2 A and C only
   3 A, B and C
   4 B and C only

4. The opportunity cost of each successive year of a student's education is greater than it was the year before. For example, the sixth year a student is in school costs more than the fifth year did. One reason for this is that

   1 each additional year of education requires sacrificing output that older, stronger, and better trained children could produce if they went to work.

   2 each additional year of education adds to the wages or salary the student will get when he goes to work, and hence to the labour cost. Society must ultimately pay for output.

   3 the longer students stay in school, the later they tend to marry and the fewer children they tend to have after they marry.

   4 the increasing productivity of the better trained labour force must cause higher unemployment for the untrained.

5. Which of the following statements is correct?

   That all economies are mixed economies means that all economies

   A engage in trade with one another.

   B combine resources in different ways to produce the goods and services they want.

   C face the fundamental problem of insufficient resources to satisfy all wants fully.

   D use a combination of the traditional, the command and the market solutions.

   1 A only
   2 A and C only
   3 B and C only
   4 D only

6. The fundamental economic problem of what, how and for whom to produce, can be tackled in three ways. Which of the following statements is correct?

   A The command solution is economically efficient because it is possible to control prices.

   B The traditional solution is economically efficient because prices are irrelevant.

   C The market solution is economically efficient because prices keep on changing.

   1 A only
   2 B only
   3 C only
   4 Neither A nor B nor C

7. A family emigrated from Britain to Australia, and in examining annual budgets discovered that it spent more on wine, recreation and housing, and less on warm clothing, heating and lighting in Australia than it did in Britain.

Which of the following factors could have caused changes in the family's spending pattern?

A The prices of goods and services.

B The income level of the family.

C The length of time period being compared.

D The values of Australian versus British society.

1 A only
2 D only
3 A, B and C
4 A, B and D

8. Which of the following statements is true if the price of rented accommodation falls, cet.par.?

A People in rented accommodation experience a rise in real income.

B Home owners experience a rise in real income.

1 A only
2 B only
3 A and B
4 Neither A nor B

9. An individual shifts to a new equilibrium position as a result of some change either in prices or in his money income. In his new equilibrium situation marginal utilities are all lower than they were in the old situation. This means that

1 he is definitely worse off in his new equilibrium situation than in his old one.

2 he is definitely better off in his new equilibrium situation than in his old one.

3 he is worse off than in his old situation if his income has changed, but not otherwise.

4 he is better off than in his old situation if price have changed, but not otherwise.

10. An individual buys only wine and cheese. In spending all his income, his marginal utility of a bottle of wine is three and his marginal utility of a pound of cheese is one. The price of wine is £4 and the price of cheese is £2. If the individual wants to maximise his utility he should buy

    1 more wine and less cheese

    2 less wine and more cheese

    3 all wine and no cheese

    4 all cheese and no wine

11. Which of the following reasons helps explain why the amount of a good demanded by an individual decreases as price increases?

    A The individual substitutes relatively cheaper goods for the good whose price has risen.

    B The individual increases his purchase of the good because of expectations of further price increases.

    C The individual suffers a loss of real income.

    1 A only
    2 A and B only
    3 A and C only
    4 A, B and C

12. Which of the following would <u>not</u> cause a shift in an individual's demand curve for peas?

    1 An increase in income.

    2 An increase in the price of sweet corn.

    3 A decrease in the price of potatoes.

    4 A decrease in the price of peas.

13. A family spends all its income on three goods - X, Y and Z. The price of Z increases while the prices of X and Y and family money income remain unchanged. If the quantity of X purchased increases and the quantity of Y purchased decreases, which of the following is correct?

    1 Z is an inferior good.

    2 X is a substitute for Z, Y a complement to Z.

    3 X is a complement to Z, Y a substitute for Z.

    4 X and Y are both complements to Z.

14. Several football teams are considering allowing persons of 65 years of age or older to attend games for £0.50 instead of the usual £1.

If the gate receipts were to rise with the adoption of the proposed policy, which of the following statements must be true?

A As a group, older people would have as a result more income to spend on all other commodities.

B The quantity of tickets bought by older persons is more responsive to changes in price than the quantity bought by younger persons.

C The resulting increase in revenue from new fans would exceed the resulting loss in revenue from existing fans who would pay £0.50 instead of £1.

1 C only
2 A and B only
3 B and C only
4 A, B and C

15. Dairy farmers requested that the Milk Marketing Board approve an increase in the price of milk in order to increase revenue to overcome falling profits. The Board disapproved the increase and suggested that the farmers would obtain higher revenues if they reduced the price to increase sales. On which of the following points do the farmers and the Board disagree?

1 Whether a cut in price would increase sales.

2 Whether at a given price an increase in sales would increase profits.

3 How responsive sales would be to changes in prices.

4 How responsive costs would be to changes in output.

16. If a consumer has budgeted a fixed amount of money to buy a certain commodity, and within a certain range of prices will spend neither more nor less than this amount on it, then his demand curve in this price range would properly be designated to be, with respect to price

1 linear

2 perfectly elastic

3 perfectly inelastic

4 of unitary elasticity

17. When one good is being produced using the minimum amount of resources

1 economic efficiency will prevail in the economy as a whole.

2 engineering efficiency will prevail in the production of that good.

3 all resources in the economy will be employed.

4 an increase in the production of that good must lead to a reduction in the production of other goods.

18. Which of the following is a correct definition of the market supply of a good?

A The quantities of the good which a firm would be willing to produce at different prices.

B The quantities of the good that people would be willing to buy at different prices.

1 A only
2 B only
3 Both A and B
4 Neither A nor B

19. If the London Symphony Orchestra were giving a concert in the Albert Hall, and if admission were free, which of the following must be true?

A Both labour and capital services are being employed to produce the concert.

B No resources are being employed since admission to the concert is free.

C Land is the only resource being employed since the Albert Hall has many alternative uses.

1 A only
2 B only
3 A and C only
4 B and C only

20. The correct definition of the term "short run" as used in the theory of supply is

1 the time period between the decision to produce a good and its final appearance on the market.

2 a time period of less than 1 year in which more than one factor of production can be altered.

3 a time period of up to 3 years in which any factor of production can be altered.

4 the time period in which a firm cannot increase or decrease the quantity it hires of at least one factor of production.

21. Which of the following events will cause a shift in a firm's production frontier?

A Full time working by a previously underemployed workforce.

B Research findings indicating new and more effective ways of combining the factors of production.

C A training course for workers resulting in a more highly skilled workforce.

1 A only
2 A and B
3 B and C
4 A and B and C

22. A necessary but not sufficient condition for a firm to maximise profits is that

1 it sells its maximum possible output.

2 its total costs of production are minimum.

3 its output is produced in an engineering efficient manner.

4 demand for its product increases over time.

23. A hop grower in Kent noted that within limits the larger the number of workers he hired the greater was the output of hops from his fields. This means that for the number of workers being employed by the grower the marginal product of labour is necessarily

1 higher than the average product of farm labour.

2 lower than the average product of farm labour.

3 greater than zero.

4 less than zero.

24. A certain wheat farmer is producing 200 bushels of wheat per year, using 1000 man-hours. He adds one man-hour and is able to raise output to 210. Then marginal product of man-hours is

1 210 bushels.

2 200/1000 = .2 bushels.

3 10 bushels.

4 .01 bushels.

25. A farmer wishing to maximise profit will always hire a factor of production as long as the value of its marginal product

1 is greater than zero.

2 exceeds its average product.

3 is greater than its cost.

4 is less than zero.

26. Which of the following is correct?

If the total cost of producing 10 units is £100 and the marginal cost of the eleventh unit is £21, then

1 total variable costs of 11 units are £121.

2 total fixed costs are £79.

3 the marginal cost of the tenth unit is more than £21.

4 the average total cost of 11 units is £11.

27. Cet.par. (other things remaining the same), the higher the marginal product of a factor input

1 the higher the marginal cost of output.

2 the lower the marginal cost of output.

3 the lower the marginal product of the other factor inputs.

4 the lower the average product of that factor.

Questions 28 and 29 are based on the following data which are for a raspberry grower who can hire labour to pick his fruit for £12 per picker per day.

Number of pickers	Raspberry output
1	£ 30
2	48
3	62
4	72
5	80
6	87
7	93
8	96
9	98
10	98

28. Which of the following is correct?

The profit maximising farmer should hire only

1 one raspberry picker because his contribution to output is greatest.

2 three raspberry pickers because the fourth costs more than he earns.

3 eight raspberry pickers because costs will equal revenue.

4 nine raspberry pickers because the value of the marginal product of the tenth is zero.

29. The government, in an attempt to improve the lot of the low-paid, passes a minimum wage law which makes payment of less than £16 per day an offence. If the profit-maximising grower complies with the law, which of the following will be correct?

A Each of the raspberry pickers the farmer had previously hired will become better off.

B The value of the average product of labour will fall.

C The quantity of raspberries picked will fall.

1 A only
2 B and C only
3 C only
4 A, B and C

30. Which of the following is correct?

A firm that wants to maximise profits should produce the output at which

1 the excess of marginal revenue over marginal cost is greatest.

2 the slope of the marginal revenue and marginal cost curves is the same.

3 marginal cost is minimum.

4 marginal cost equals marginal revenue.

Questions 31 and 32 are based on the following data:

At its present level of output of 400 units, a competitive firm discovers that its marginal cost is £4. At an output level of 300 units, marginal cost is £3 and is equal to average total cost. The price of the commodity being produced is £5.

31. If the firm wishes to maximise profit, which of the following should it do?

1 Increase output.

2 Decrease output.

3 Raise price.

4 Lower price.

32. How much would a four hundred and first unit of output add to profit?

1 £5

2 £4

3 £3

4 £1

33. Which of the following would cause a firm's long run supply curve to shift to the left?

1 An increase in the costs of factor inputs.

2 A decrease in the costs of factor inputs.

3 Discovery of more efficient production methods.

4 A decrease in the price of the good being produced.

34. Which of the following is correct?

For all points on a firm's long run supply curve

A the firm is producing in an engineering efficient fashion.

B increases in output are associated with increases in average costs.

C increases in output are associated with increases in total costs.

1 A only.
2 B only
3 A and C only.
4 Neither A nor B nor C.

35. Which of the following is correct?

If a firm is producing output at a point where diminishing returns have set in

A each additional unit of output will be more expensive to produce.

B each additional unit of output will require increasing amounts of the factor of production being increased.

C the marginal product of the variable factor of production decreases as the quantity used increases.

1 A only.
2 A and B only.
3 B and C only.
4 A, B and C.

MID TERM EXAMINATION

Essay — Time allowed - 50 mins

"Analyse how the price system allocates resources in a competitive market economy."

Answer Sheet for Section A : Objective Questions : Final Examination
Microeconomics

First name: Last name:

Please circle the number which you think corresponds to the correct answer.
Erase completely any answer you wish to change.

Q. 1	1	2	3	4
Q. 2	1	2	3	4
Q. 3	1	2	3	4
Q. 4	1	2	3	4
Q. 5	1	2	3	4
Q. 6	1	2	3	4
Q. 7	1	2	3	4
Q. 8	1	2	3	4
Q. 9	1	2	3	4
Q.10	1	2	3	4
Q.11	1	2	3	4
Q.12	1	2	3	4
Q.13	1	2	3	4
Q.14	1	2	3	4
Q.15	1	2	3	4
Q.16	1	2	3	4
Q.17	1	2	3	4

Final Examination - Microeconomics

Section A - Objective Questions

Answer all questions.

1. The real cost to society of building a new school is

   a. the other desirable goods that could have been produced instead of the new school
   b. the money spent for the new school
   c. the taxes necessary to pay for the new school
   d. the other goods that teachers could produce if employed elsewhere

2. A consumer's demand curve typically is downward sloping to the quantity axis for which of the following reasons?

   1. At lower prices, the good in question is substituted for other goods that are now relatively more expensive.

   2. At lower prices, the consumer can buy all he bought at the higher prices and with the money left over buy still more.

      a. 1 only
      b. 2 only
      c. Both 1 and 2
      d. Neither 1 nor 2

3. A family will be away from its house for six months. The monthly mortgage payment on the house is $300. The local services, to be paid by the owner, cost $60 per month if the house is occupied; otherwise 0. If the family wishes to minimize its losses (or maximize its gains) from the house, it should rent for as much as the market will bear as long as monthly rent is above the following. (Assume wear and tear, etc., to be zero whether or not the house is occupied.)

   a. $0
   b. $60
   c. $300
   d. $360

4. In travelling about a city most people use either subway or bus. Suppose all subway fares were doubled, while bus fares remained unchanged. How would the subway fare increase affect fare revenue?

   a. It would increase for buses but might increase or decrease for subways
   b. It would increase for subways but might increase or decrease for buses
   c. It would increase for both subways and buses
   d. It would increase for subways and remain unchanged for buses

5. As compared to a direct social security payment, how would you evaluate the provision of below-cost public housing to poor persons from the point of view of satisfying consumers' wants?

   a. It is more efficient because it gives low income persons what they need
   b. It is less efficient because it will result in too much housing and too little of the other things consumers want
   c. It is more efficient because it cannot be spent on undesirable goods such as tobacco and drink
   d. It is less efficient because the government cannot manage housing efficiently.

6. In a fully employed economy some workers are unable to earn the $5000 per annum considered to be that income necessary to maintain minimal acceptable living standards for an average family. To combat such poverty two different schemes have been proposed:

   1. The government makes up any difference between income and $5000 with a cash payment.

   2. The government pays $5000 to all families earning less than $5000 but taxes earned income at 30%.

   What would be the effects of these two proposals?

   a. 1 would result in greater work effort by the poor than would 2
   b. 2 would result in certainly no less and possibly greater work effort by the poor than would 1
   c. Both 1 and 2 would result in an equal increase in work effort by the poor
   d. Neither 1 nor 2 provides any incentives to work at all for individuals earning less than $5000 per annum

Questions 7 and 8 are based on the following information.

Every night 20 heavy trucks disturb the residents of a town situated near a freeway. No other vehicle causes a noise problem. Fitting a $10 muffler to every truck is the only way to eliminate the noise problem. The life of each muffler is one year. The residents of the town collectively decided that getting rid of the truck noise was worth more than $200 per year, though it was not worth $200 to any individual family.

7. To achieve economic efficiency which of the following should occur?

   a. The mufflers should be fitted and the truck company should pay
   b. The mufflers should be fitted and the residents should pay
   c. The mufflers should be fitted and the costs divided
   d. The mufflers should be fitted but who should pay is not a question of economic efficiency.

8. Assuming that the truck company acts to maximize profit and each household acts to maximize its own welfare, a private firm still could not make a profit from selling mufflers (either to individual households to give to the truck company or to the truck company itself) for which of the following reasons?

   1. In pursuit of profit the truck company would not take all costs into account.

   2. The householders that might purchase mufflers would not be able to charge other households.

   3. The continued existence of the noise suggests that the benefit and/or the cost calculations were inaccurate.

      a. 1 only
      b. 2 only
      c. 1 and 2 only
      d. 3 only

9. Yoyos are produced by many competing firms. At present levels of production, costs per yoyo would increase if output increased. If a profit maximizing monopolist were to buy out all the present producers, how would the quantity produced compare with output under competitive conditions?

a. The quantity produced by the monopolist would be lower
b. The quantity produced by the monopolist would be the same
c. The quantity produced by the monopolist would be higher
d. The relative quantity that would be produced by the monopolist cannot be determined from the available information

10. If, because of continued U.S. balance of payments surpluses, it was decided to revalue the dollar upwards, what would be the effect on U.S. residents if no other country made any changes?

1. A vacation in Europe would cost less.

2. Imported goods would become cheaper.

a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

11. Favourable weather conditions have increased the Brazilian coffee crop this year. A Brazilian economist recommended that sufficient coffee be destroyed to keep the price of coffee from falling. What must be the effect of adopting the economist's proposal?

1. A reduction in world real income

2. A reducation in Brazilian real income

3. A reduction in Brazilian coffee growers' real income

a. 1 only
b. 1 and 2 only
c. 1 and 2 and 3
d. Neither 1 nor 2 nor 3

12. Questions 12 and 13 are based on the following information.

In an economy where there is unrestricted competition in all markets, coal is the primary source of heat for most households. Suppose a supply of natural gas which can provide heat at a much lower cost is discovered.

12. Assuming the cost per ton of coal increases as the coal industry output increases, what effect will the discovery have on the price of coal and the quantity of coal produced?

a. Price will increase; quantity will decrease
b. Price will decrease; quantity will decrease
c. Price will decrease; quantity will increase
d. Price will increase; quantity will increase

13. Which of the following changes in the distribution of real income will result from the discovery?

1. The real income of employees in the natural gas industry will fall relative to the average

2. The real income of coal miners will fall relative to the average

3. The real income of residents in colder districts will rise relative to the average

a. 1 and 3 only
b. 2 and 3 only
c. 3 only
d. 1, 2 and 3

14. If, for a manufactured commodity, a monopolist were allowed to charge that price which maximized profit, which of the following would be true?

1. The price would not equal the cost of the last unit produced

2. The revenue received from the last unit produced would equal the cost of producing that unit

3. Total revenue (price x quantity) for the monopolist would not be maximum.

a. 2 only
b. 1 and 2 only
c. 2 and 3 only
d. 1, 2 and 3

15. A launderette operator discovers that at his present level of operation the installation of an additional washing machine will increase output by 20%, the installation of an additional drier will increase output by 10%, and the installation of both will increase output by 30%. The washing machine costs $100 and the drier $40. To maximize profit what should the launderette operator do? He should

a. instal only the washing machine
b. instal only the drier
c. instal both the washing machine and the drier
d. nor necessarily instal either the washing machine or the drier or both

16. Suppose that it is true that the world prices of agricultural commodities are unaffected by the quantities demanded and supplied by any one country and that each commodity is indistinguishable by country of origin. Furthermore, each country's market prices equal world prices. For certain agricultural products the government pays U.S. farmers guaranteed prices which exceed market prices. If all such subsidies were discontinued which of the following would be expected to occur at full employment?

1. The U.S. market prices for these commodities would rise

2. There would be a decrease in the U.S. standard of living

3. There would be an increase in U.S. agricultural imports

a. 1 only
b. 1 and 2 only
c. 3 only
d. 1 and 2 and 3

17. This question is based on the following hypothetical statement:

"An electrical power utility requests that the Federal Power Commission (FPC) approve an increase in rates for electricity in order to increase its revenues to overcome falling profits. The FPC disapproves the increase and suggests that the utility would do better if it reduced its rates."

On the basis of the above statement, which of the following is true?

1. The utility will not be able to increase its revenues, because it cannot raise its rates.

2. The utility believes the demand for power is inelastic; the FPC believes demand is elastic.

3. The utility believes the demand for power is elastic; the FPC believes demand is inelastic.

a 1 only
b 2 only
c 3 only
d Neither 1 nor 2 nor 3

Section B - Case Questions

Answer only one question

Case 1 - Gasoline Rationing versus the Free Market

Consider the following hypothetical situation: The mayor of a small town sent the following letter to the President of the United States recommending a solution to the gasoline shortage.

Dear Mr. President,

As you know, I have strong objections to anything that interferes with the free functioning of the marketplace. Your proposal to tax petroleum constitutes such an interference. Your opponent's proposal to ration gasoline involves even more interference with market forces. The outcome of such a scheme, if it were adopted, would be black markets and all the concomitant waste of resources associated with such markets.

The real point, of course, is that there is no gasoline shortage, just as there is no shortage of Mercedes', diamonds, or Scotch whisky. The fact that the price of an item has risen significantly does not imply a shortage. In a market economy, a shortage can only arise when an all-powerful body like the government sets a price below the equilibrium market price. Since I am sure, Mr. President, you would never contemplate establishing regulated prices for all commodities we consume, I urge that gasoline be treated like any other commodity. In short, the problem disappears when market forces are allowed to operate unhindered by government intrusion.

Sincerely yours,

Twist V. D. Baer
Mayor

The President's economic adviser sent the following reply:

Dear Mayor Baer,

The President has asked me to reply to your interesting letter. An official report analyzing the advantages and disadvantages of each of the three proposals you discuss is being prepared by Dr. Denniswood. We will forward a copy to your office shortly and look forward to your reaction.

Sincerely,

Con Johnlisk

What would you say in the report if you were Dr. Denniswood as to the relative merits in terms of economic efficiency of the three policies - a tax on gasoline, rationing of gasoline, and letting the market for gasoline operate freely?

Case 2 - Pollution and the Prima Paper Company

In 1940, Prima Paper Company opened a pulp and paper mill on the Big Walnut River, 30 miles south of Columbus, Ohio. The company originally employed 200 workers from surrounding towns, and as the mill grew, a town Stafford sprung up around it. In 1950, the mill employed 450 workers while Stafford's population was 2,500 with virtually all the working townspeople employed directly or indirectly by the mill. By 1970 the town had grown to 10,000 and the 500 workers in the mill represented only about 18% of the town's work-force. The mill was no longer the only employer in town.

Prima originally had chosen its mill location because it was central to supplies and markets and because the Big Walnut was a swift-moving wide river passing through relatively unpopulated regions - well suited for disposal of process wastes. But by the 1970s the town had grown up, even downstream from the mill. In 1972, a group of residents brought a suit against Prima Paper Company to enjoin them from dumping effluent into the river.

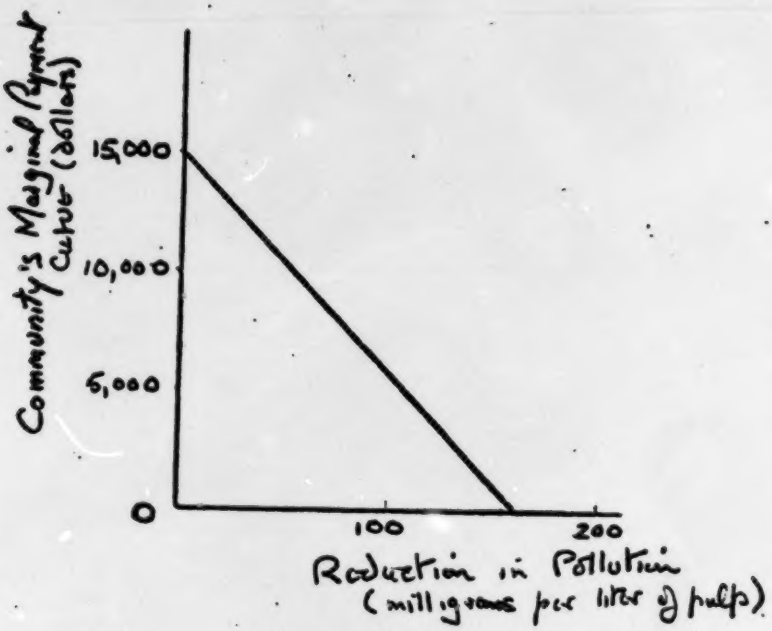
As a "friend of the Court" you are asked to analyze the situation. You are presented with the following facts that the Court has found to be true, and you are to use these facts as a basis for your analysis.

1. The present level of pollution is 160 milligrams per liter of pulp and unless some antipollution measure is adopted, pollution will continue at this level indefinitely. It also has been established that level of pollution per liter is independent of the level of production of the plant.

2. The only feasible method of reducing pollution is to instal a waste treatment plant downstream from the mill. Fixed costs are $400,000 and variable costs are $6,000 for each milligram of pollutants per liter of pulp removed from the river.

3. A study of residents' attitudes regarding the mill's pollution indicates that the community would be willing to pay according to the curve shown in Figure 2.1 to reduce pollution.

Figure 2.1



Note that the curve represents a marginal payment schedule. If the company were to reduce pollution by 10 milligrams per liter, the payment would be $15,000 for the first milligram, $14,900 for the second, and so on. The total payment would be the area under the curve between 0 and the level of pollution reduction.

If the community were to subsidize the company for reducing pollution according to this schedule, what would be the profit-maximizing level of pollution? In what sense would this level of pollution be the efficient level of pollution? Would it be efficient to force the company to reduce pollution to zero? If the Court decided to reduce pollution by charging the company an effluent fee, what marginal fee schedule would reflect accurately the damage to the community from pollution? How would this policy differ from the subsidy scheme with respect to the distribution of benefits from pollution reduction between the Prima Paper Company and the community?

Section C - Essay Questions

Answer only one question

1. A visitor from Mars, where goods, services, jobs, wives, football tickets, etc., are allocated by their ageless king, visits Earth and asks you to introduce him to the Earth allocative king. You begin "It's like this, you see.....". Continue.

2. "The price system works well in normal times but breaks down under stress of war or other upheavals." Discuss.